Manufacturers Record

Exponent of America



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Baltimore, Md.
October 6, 1921

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Dr. NEWELL DWIGHT HILLIS ON LABOR'S WAR AGAINST LABOR.

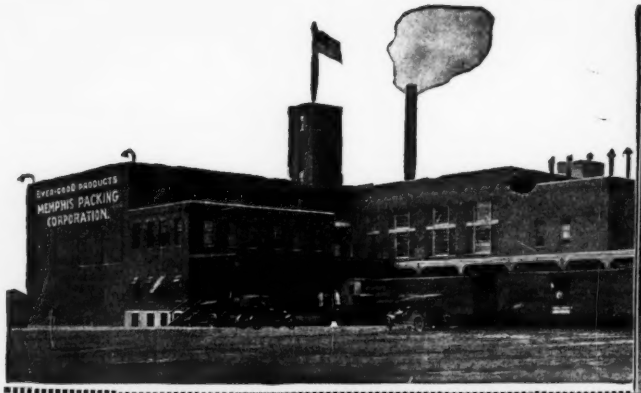
During the European war Dr. Newell Dwight Hillis, after visiting the battlefields of Belgium and France, became probably the most powerful voice in America to arouse this nation to the mighty task to which God had called it in saving civilization from barbarism.

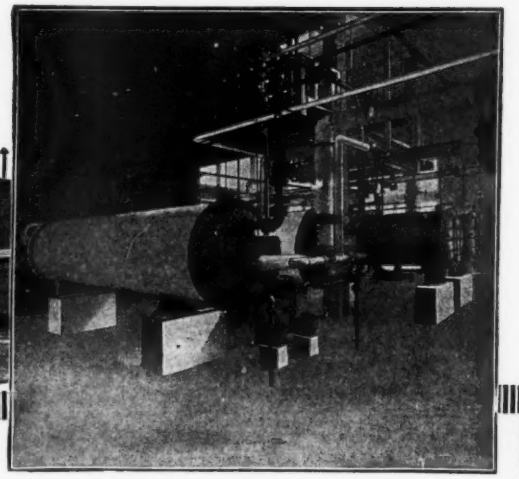
For many years Dr. Hillis has been one of the conspicious, outstanding ministers of the gospel, reaching the public from the pulpit once held for years by Henry Ward Beecher, with a voice more powerful in its appeal to the conscience of the country than that of Beecher himself.

Today Dr. Hillis faces the problems of socialism, Bolshevism and radical labor unionism, after having personally studied on the ground every important strike during the last three years in Canada and on the Pacific Coast and in other parts of this country, and with this knowledge he permits us to republish, as voicing today the same sentiments he expressed years ago in a sermon appealing to the nation to recognize the rights of the free man or non-union man as against the dictatorial power of radical union labor.

The sermon from which extracts are taken, delivered nearly twenty years ago and which recently by accident came to our attention, spoke the living, burning truth more necessary for the nation to hear at the present time than even at the time at which it was delivered. Dr. Hillis' appeal in behalf of the rights of the free man and his denunciation of the criminal acts of those who by the bludgeon or the boycott would deprive other men of the right to work, make this one of the most powerful appeals ever uttered in behalf of the God-given right of men to work unbossed by the chains of slavery under which labor union men are now controlled. Dr. Hillis had often spoken in behalf of union labor, but as he saw how union labor was fighting free labor and at times committing unpardonable crimes to dominate all interests, he appealed to the conscience of his hearers and to the people of the nation to recognize their supreme responsibility to safeguard and protect the rights divinely given to the non-union man that he might have the privilege of working for whomsoever and wheresoever he pleased.

It would be of limitless value if this stirring appeal of Dr. Hillis could be read by every minister, every teacher and indeed by every man and woman in this country.





100 TON VOGT REFRIGERATING PLANT
MEMPHIS PACKING CORPORATION

The South's Largest Packing Corporation

The building of the new $2,000,000 plant of the Memphis Packing Corporation, Memphis, Tennessee, marks another great stride in the South's industrial development.

The personnel of this modernly equipped plant is composed of men who have had broad experience in other large packing establishments of our Country. Their exceptional work with these concerns puts them in the "Expert Class."

We are proud to say the officials in charge of the construction work in the Refrigerating Plant of the Memphis Packing Corporation specified

Vogt Ice Making & Refrigerating Equipment

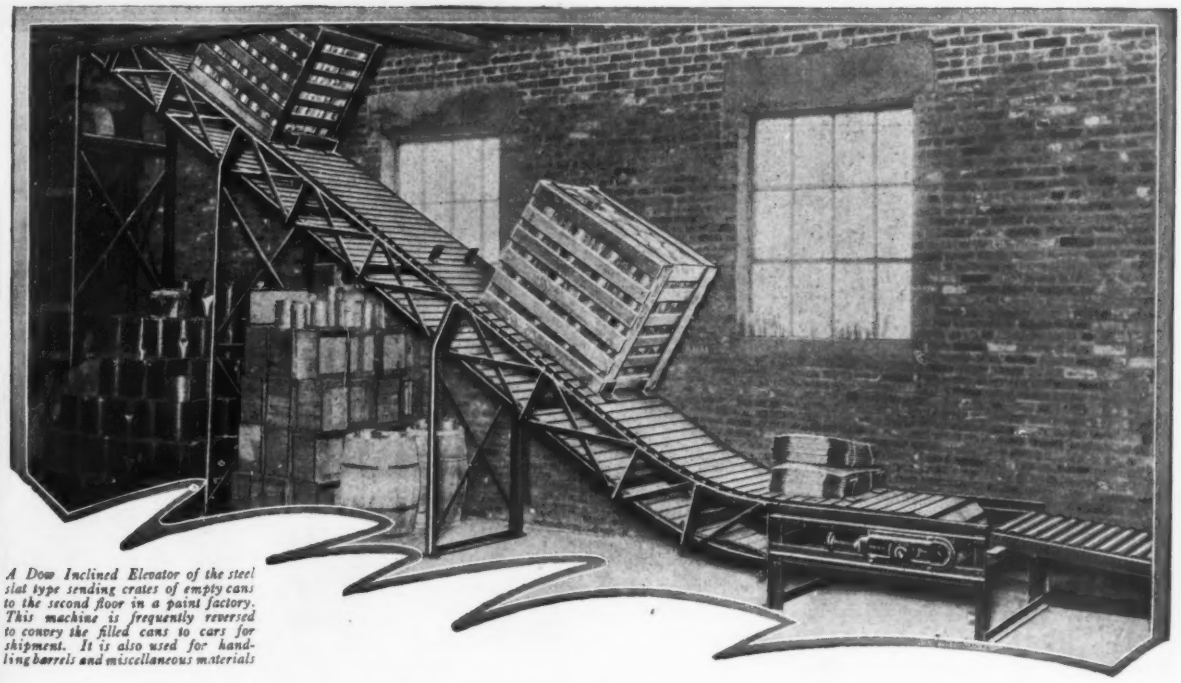


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Incorporated
LOUISVILLE, KENTUCKY

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MANUFACTURERS OF ICE MAKING AND REFRIGERATING MACHINERY, DROP FORGED STEEL VALVES & FITTINGS, WATER TUBE & HORIZONTAL RETURN TUBULAR BOILERS, OIL REFINERY EQUIPMENT



A Dow Inclined Elevator of the steel slat type sending crates of empty cans to the second floor in a paint factory. This machine is frequently reversed to convey the filled cans to cars for shipment. It is also used for handling barrels and miscellaneous materials

The Real Meaning of Dow Service

Some manufacturers consider the installation of a conveying system in the same category as the buying of a desk, a filing cabinet or a typewriter. This is a fallacy.

Vastly more is entailed in obtaining thorough satisfaction in gravity conveyor service than merely the act of purchase and installation. Assuring thoroughly satisfactory performance and long-life are subjects for the keenest engineering judgment.

For instance, the plant must be carefully analyzed in order that the equipment may be so placed as to obtain the maximum service and economy and to insure the correct placing of auxiliary power conveyors. By careful planning small installations can be so arranged that they can be added to at any time to care for increasing needs without interfering with production.

The product must also be thoroughly analyzed in order to determine the exact type of gravity conveyor that is best suited to handle it. It is obvious that a conveyor with delicate bearings equipped to convey light material is entirely unfitted for use in a plant where heavy castings must be borne from one place to another.

Every Dow Conveyor is installed with the unqualified guarantee to be free from defects of workmanship and materials for a period covering an entire year and to operate precisely according to specifications. *Dow will not recommend the installation of conveyors unless the conditions warrant an actual saving in production.*

Dow Conveyor service means cooperation in its real sense. Dow engineers are always prepared to assume the complete burden of responsibility for satisfactory service. A request for interview will obligate you in no way.

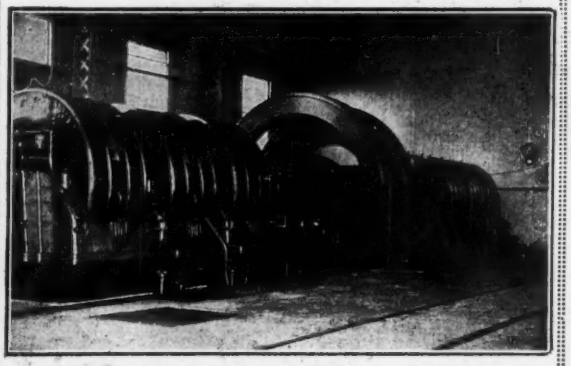
Write The Dow Co., Incorporated, Louisville, Ky. New York Office, 50 Church St. Chicago Office, 1235 Old Colony Bldg. Detroit Office, 8855 Woodward Ave. Representatives in other principal cities. Canadian Representatives, Jones & Glassco, Reg'd, Montreal, Canada.

"Let Gravity Do It"

248359

DOW LOUISVILLE CONVEYORS

DE LA VERGNE OIL ENGINE



1080 H. P. De La Vergne Diesel Oil Engine at Waipahu-Oahu, T. H.

A thoroughly reliable and simple full Diesel Oil Engine of high economy. Burns any kind of commercial liquid fuel-consumption 4/10 of a pound per horsepower hour.

The first De La Vergne oil engines built 28 years ago are still running. Several hundred thousand horsepower of De La Vergne engines are in operation today.

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1107 East 138th Street

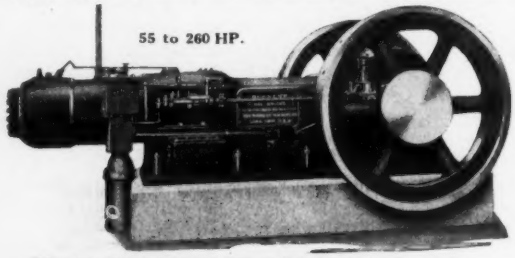
NEW YORK, N. Y.

BUCKEYE OIL ENGINES

for

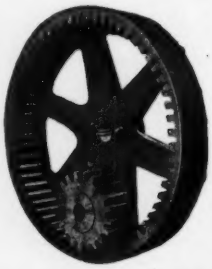
Factory, Mill, Mine and Municipal Power Plants.

55 to 260 HP.



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Spurs, Bevels, Miters
Worm Wheels, Worms
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Made of Cast Iron, Cast Steel, Semi-Steel, Brass, Bronze, Steel

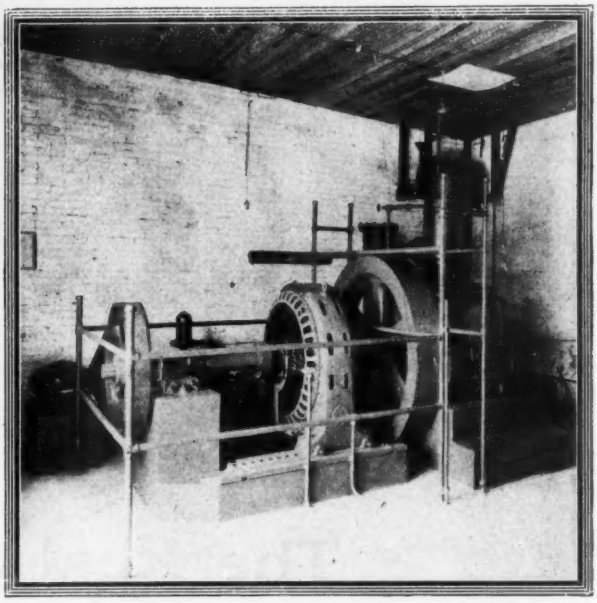
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LINK-BELT COMPANY, OWNER.

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"Y" Engines and Low Priced Fuel Oils Furnish Economical Light and Power for Indiana Town.

Small towns and cities appreciate the unusual fuel economy and low operating costs of "Y" Oil engines. The savings made quickly pay for the plant and place it on a dividend paying basis.

The plant shown above consists of a 37½ H. P. "Y" engine direct connected to a Fairbanks-Morse alternator. A 3 H. P. "Z" engine is belted to a single stage air compressor for starting.

"Y" oil engines, 10 H. P. to 300 H. P. economically use low priced fuel oils. They start quickly—are easy to operate—all expense stops when fuel is shut off. These engines are furnished for either belt drive or for direct connection to Fairbanks-Morse alternators.

FAIRBANKS-MORSE QUALITY F M 100%

Fairbanks, Morse & Co.

MANUFACTURERS CHICAGO

Oil Engines - Pumps - Electric Motors and Generators - Fairbanks Scales - Railway Appliances - Farm Power Machinery

THOMAS A. EDISON, INC.

A.W. ALMQUIST
AUTOMOTIVE ENG. SERVICE
THOMAS A. EDISON LABORATORY
MEMBER OF S. A. E.

ORANGE, N.J.

May 3, 1920.

The Ever Tight Piston Ring Co.
St. Louis, Mo.

Gentlemen:

The Zelnicker Ever-Tyte Piston Rings submitted have been tested on a block Dynamometer as well as on the road for 2000 miles in a Ford car and have proved satisfactory in every respect. Using Ford Standard Champion Spark Plugs, Ford Standard Holley Carburetor, Standard gasoline S.P.G. at 60 degree F. - 60 degree Be. and Mobile Oil, grade E, the following improvements in engine were shown over the old rings:

Increase in compression	25%
Increase in power	12%
Decrease in gasoline consumption	12%
Decrease in carbon deposit	35%
Decrease in wall friction	10%

Because of higher compression, spark control should be retarded about 10 degree in order to prevent spark knocks. With 76-80 degree Be. gasoline, spark control may be advanced 25% without knocking.

I can assure you that I have not found a piston ring superior to yours and I can recommend Zelnicker Ever-Tyte Piston Rings very highly to the trade in general.

Very respectfully yours,

A.W. Almquist

The right-angle interlock is your safeguard



Free Evidence Booklets
(9 volumes)
will show you what the user thinks of

ZELNICKER
Ever-Tyte
The Piston Ring for All Cylinders
ST. LOUIS

Used in
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or wherever Piston Rings are used

It is what the USER says that counts.

248359

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If you are in the market for the above, get our prices. We are Southern Manufacturers, and not only manufacture, but guarantee our products. We want you to take advantage of our 50 years' experience.

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Boilers of All Styles and Sizes

Murray Iron Works Co.
BURLINGTON, IOWA

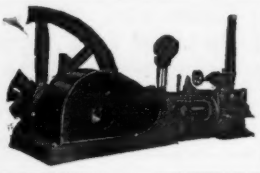
Incorporated February 1, 1870

Paul Bigelow, 39-41 Cortlandt St., New York City. W. M. Jackson, Bourse Bldg., Phila., Pa

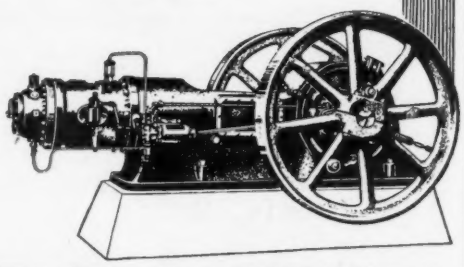
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832 Clinton St.
MILWAUKEE, WIS.

Corliss Engines

Ice and Refrigerating Machinery



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THE distribution of Bessemer Oil Engines is world wide. No other power equipment combines so many advantageous features. Less floor space needed, compactness and simplic ty of design. No skilled labor required for its operation. These economies plus the low cost of operating on any grade of fuel oil make the Bessemer ideal for any power requirements 15 to 180 H. P. Write for catalog.

THE BESSEMER GAS ENGINE CO. 64 York St., Grove City, Pa.

BESSEMER OIL ENGINES



"Walls" Everlasting Oilers

of Brazed Steel, specially designed for Strength. Every joint brazed with Hard Spelter. Red Heat or the roughest usage will not cause a leak.

Our Specialties Include

Oil Caps	Bells
Fillers	Gongs
Torches	Belt Fasteners
Hand Lamps	Ice Cans, Etc.

These goods are warranted of the greatest possible durability, and the best obtainable quality.

Ask for Catalogue

The P. Wall Mfg. Supply Co.
Allegheny, Pa.

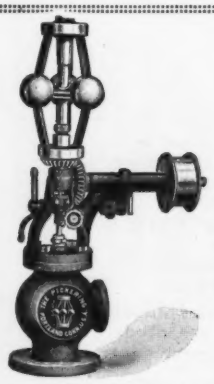
Gaso Combination Burners

Burns either gas or oil separately or together; simple of installation, operation and construction.

Send for Our "Save Fuel" Circular

GASO PUMP & BURNER MFG. CO.
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GAS ENGINE GOVERNORS

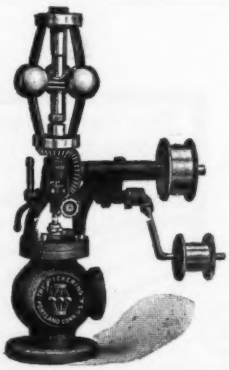


Class B type

Because of the excellent showing that Pickering Governors have made on Steam Engines in the past, many operators are consulting with us as to adaption of our JOINTLESS principle to Gasoline Engine control and we have shown desired results in a simple and effective manner.

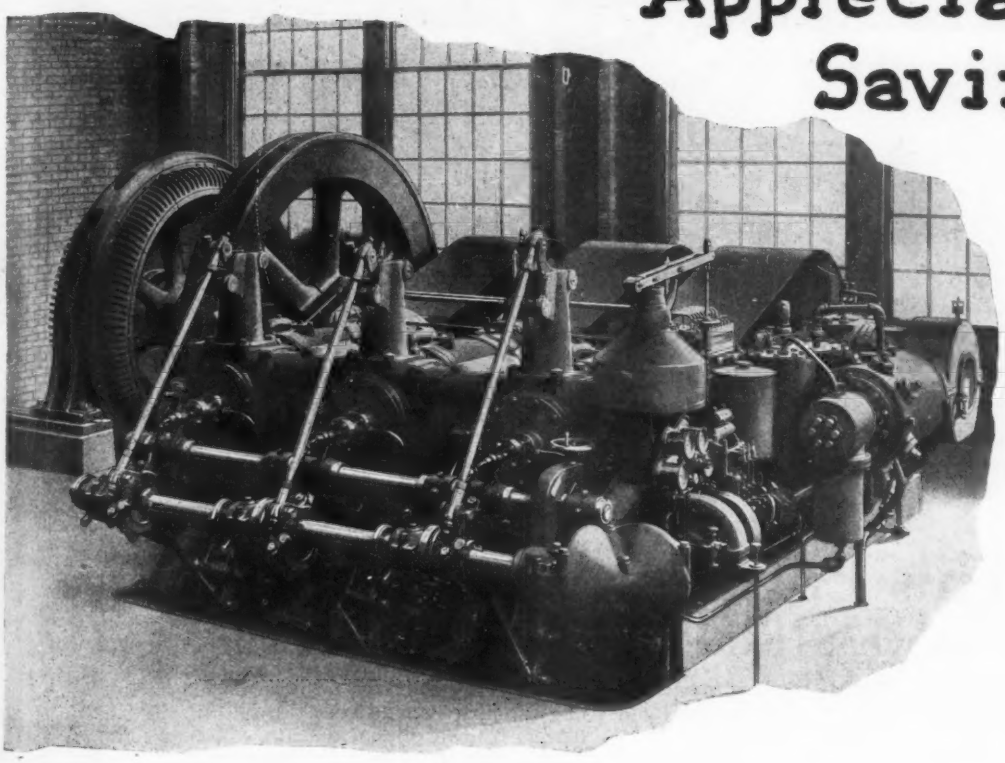
We will be glad to confer with any parties dissatisfied with present equipment, showing what we can do as solution of their problem—yet without their incurring any obligation as to purchase.

THE PICKERING GOVERNOR COMPANY
Portland, Conn., U. S. A.



Class A type

Appreciable Savings



Allis-Chalmers Triplex Oil Engine Direct Connected to an Allis-Chalmers Generator

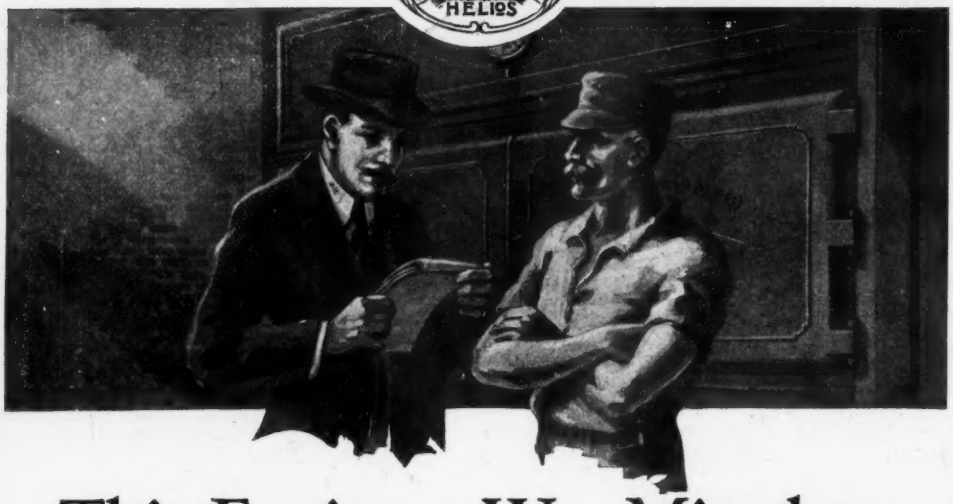
Allis-Chalmers Diesel Type Oil Engines

All the economical advantages of the Diesel system are combined in the Allis-Chalmers Oil Engine, together with special constructive features essential for reliability in service.

The open nozzle and the self-scavenging feature of this type permit the successful use of any fuel oil that can be pumped, including oils that require preheating to make them flow readily through the piping. Oils such as Texan, Mexican and California natural crudes, some of which cannot be used satisfactorily under boilers, are easily handled by the Allis-Chalmers Oil Engine.

ALLIS-CHALMERS

MILWAUKEE, WIS. U. S. A.



This Engineer Was Mistaken

as to what Heine Large-Unit Boilers can do

HE CLAIMED he was entirely familiar with the Heine Boiler and what it could do. Why shouldn't he be? He had had charge of one of them for the last ten years. But he was not satisfied with its overload capacity, and scoffed at the idea of obtaining 300% of rating with a respectable efficiency.

The engineer then took our representative down into his boiler room to show him. His proof was:—a 350-hp. Heine Boiler built fifteen years ago, with baffling arranged according to the practice of that day, and the boiler set only six feet above the grate! No wonder he couldn't get any considerable overload!

Our representative "opened" this engineer's eyes when he showed him a report of an official test, in which, *under actual working conditions* a 950-hp. Heine Large-Unit Boiler, from a banked fire, attained 300% of rating in 4 min. 23 sec.—and maintained this rating until the stoker ceased to function due to poor fuel. (This test was made by Mr. George H. Perkins, Consulting Engineer, of Boston).

Finally our representative prevailed upon this engineer to pay a visit to a plant in his own city, where Heine Large-Unit Boilers are installed according to modern practice. He learned of up-to-date baffles and settings, and saw that a 300% rated load was being carried with little loss of efficiency.

That engineer is now convinced.

Heine Boiler Company, St. Louis, U. S. A.

New York Boston Chicago Cincinnati New Orleans Philadelphia Pittsburgh Detroit Cleveland
Also Agencies in many other cities

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HEINE LARGE UNIT BOILERS

THE BABCOCK & WILCOX COMPANY

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WORKS

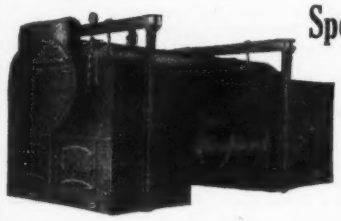
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Makers of Steam Superheaters since 1898 and of Chain Grate Stokers since 1893

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TANKS OF STEEL FOR ALL PURPOSES



Special Plate Work

LOOKOUT BOILER AND MFG. COMPANY
CHATTANOOGA, TENN.

HARTLEY BOILER WORKS

BUILDERS OF HIGH GRADE **BOILERS**

Stand Pipe, Self-supporting Stacks, Tanks, Towers, all kinds of Structural and Plate Iron Work, Boiler Fronts, Grate Bars, all kinds of Castings.

MONTGOMERY ALABAMA

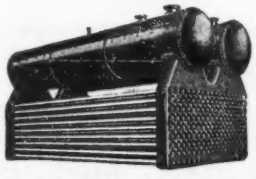
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Steel Casing Settings, Heaters, Stacks, Tanks, Stills

THE HOUSTON, STANWOOD & GAMBLE CO.
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BOILERS OF ALL TYPES

WITH OR WITHOUT STEEL CASINGS



TANKS and TOWERS

STRUCTURAL STEEL WORK

THE WALSH & WEIDNER BOILER CO.
CHATTANOOGA, TENN.

BRANCH SALES OFFICES
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Specialists in
Inspecting and Repairing
all types of
Brick and Concrete Chimneys
while your plant is in operation.
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RUST CHIMNEYS

RADIAL BRICK AND REINFORCED CONCRETE
REFRACTORY BRICKWORK

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ENGINEERS AND CONTRACTORS

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BOILER TUBES

FOR ALL TYPES OF BOILERS

Especially bent tubes for vertical water-tube boilers

Also carry a large stock of straight tubes.
Write, phone or wire for quotations.

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Also EXPERTS in
Repairing Brick and Concrete Chimneys
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Work done while chimney is in operation, if necessary
New York Atlanta Richmond Baltimore

CHARLESTON DRY DOCK & MACHINE CO.

Successors to VALK & MURDOCH CO.

MARINE AND STATIONARY BOILERS
Repairs to Steel and Wooden Vessels

8,000-ton Dry Dock - 1,500 and 600-ton Marine Railways
CHARLESTON, S. C.

What the Other Fellow Says

has more weight than any horn blowing we might do.

This letter is only one of many which we will be glad to let you read.

NATIONAL BOILER PROTECTOR COMPANY

DAYTON, OHIO.

COLONIAL SUGARS COMPANY
GRAMERCY REFINERY

GRAMERCY, LA., April 3, 1919

NATIONAL BOILER PROTECTOR COMPANY,
740-741 Beibold Building,
Dayton, Ohio. SUBJECT: GIRTH SEAM PROTECTORS

Gentlemen:

In reference to your letter of March 28th, making inquiry as to efficiency and services secured by us since installing the first trial set of your Boiler Seam Protector in month of October, 1917, we wish to state the following facts·

Our boiler plant consists of sixteen 84" x 20' H. R. T. boilers with oven fronts. Twelve boilers are used developing from 3500 to 4500 H. P. as required, with an average temperature of 2700° Fah.

We use Mexican crude oil as fuel. Combustion results average 12.5 to 13.5 CO_2 under continuous sample analysis. The original trial set of seam protectors are still in service and in practically the same condition as when installed. This would represent twenty-four hours per day and ten months per year. We now have three sets of your protectors on each of the sixteen boilers and have noted no deterioration in either the lugs or the refractory tile.

Since using these we have not had a fire crack at Girth seams or leaky rivets. These protectors have eliminated the expense of fire brick arches at $65.00 each, which we formerly replaced each four months In conclusion we wish to state that we are satisfied.

Yours very truly,

COLONIAL SUGARS COMPANY

Engineering Department

Double-Shift Rocking Grates

Have 10% more air space than any other grate made. Designed for hard or soft coal.

Nute, McGehee, Geary Co., Inc.
Chambersburg Pennsylvania

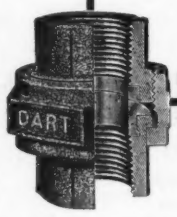
CRANE VALVES

THE QUALITY UNION

The Dart is the Quality Union, and quality is always cheapest.

The Dart is made of Malleable Iron, with extra heavy pipe ends and with double seated ball joint formed of bronze rings.

IN DART UNION THERE IS DOUBLE STRENGTH



E. M. DART MFG. CO.
PROVIDENCE, R. I.

The Fairbanks Company, Sales Agent
Dart Union Co., Ltd., Toronto, Canada



Beware of Infringements
Patented Jan. 12, 1915
Jan. 26, 1916

The Armstrong Grate

Is an Ash Sifter, a Vibrating Grate, a Shaking Grate and a Dumping Grate

It has a new improved shaking mechanism that is fool-proof. By lifting bar "E" the grates will dump clinkers 6 inches thick. When bar "E" is down, it is a sifter and vibrating grate, the grate bar fingers opening just enough to let the fine ashes through and push clinkers loose; the fingers raise and lower 4 inches without increasing the grate opening. Hence there can be no loss of coal when shaking. Its wonderful durability is explained by the fact that 80 per cent. of the weight is in the grate where it belongs—not in useless framework. Write for full details and prices.

-E

We will put in our grate on trial with any Shaking Grate on the Market, and do it at Our Expense.

Armstrong Manufacturing Company, Springfield, Ohio
Dept. M

Coal on the ash-heap is not worth much

Ashes are all right on ash heaps that's where they belong, but dumping good coal there in these "piping times of reconstruction" is little short of criminal.

Yet that is what many firms who use the old standard type of grate are doing, putting coal into a furnace and dumping it partially burned onto the ash heap.

The world has moved. The Thomas Elliptical Wiggling, Shaking, Dumping Grate Bars have solved the combustion problem, and every day that you are without them is costing you money.

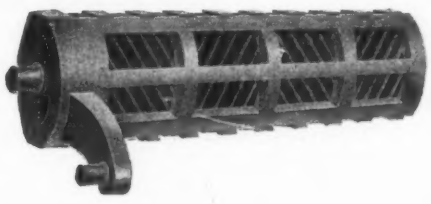
THOMAS GRATE BAR CO.
BIRMINGHAM - - ALABAMA

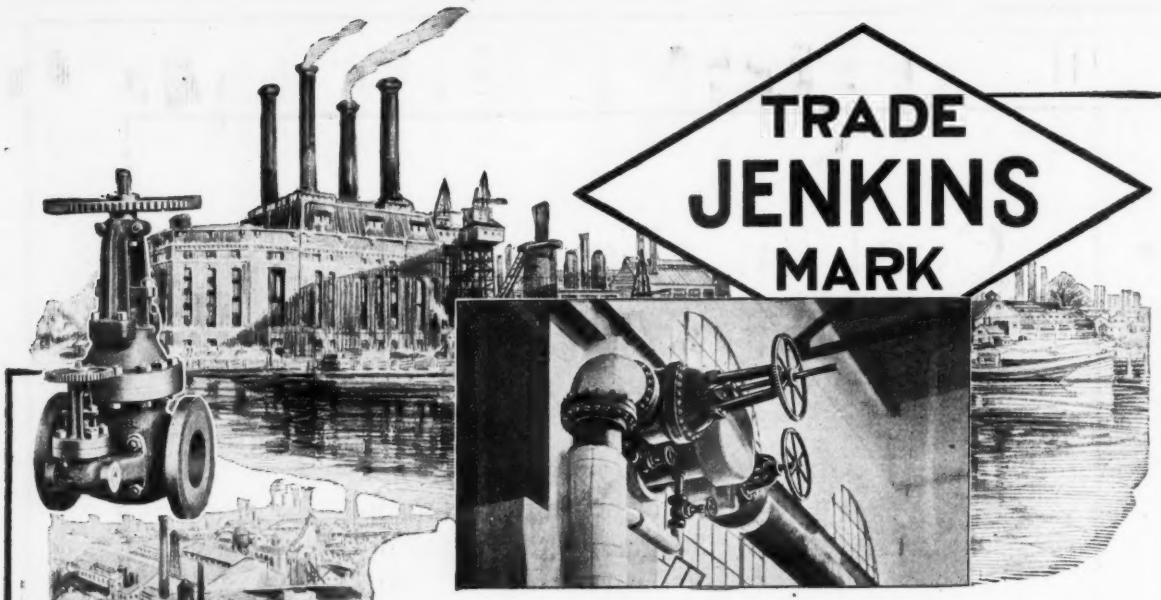
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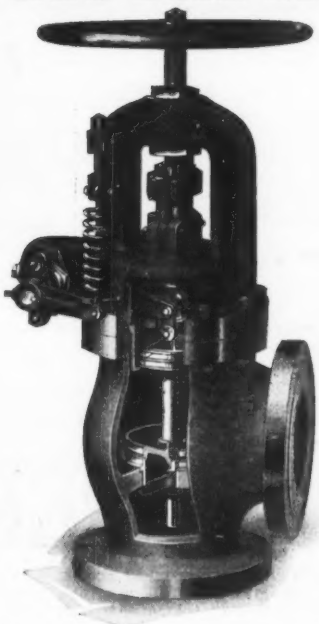
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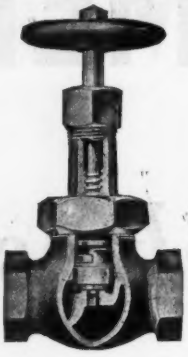
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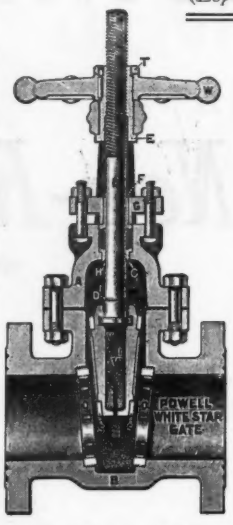
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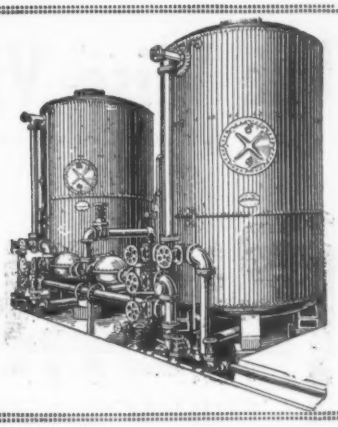
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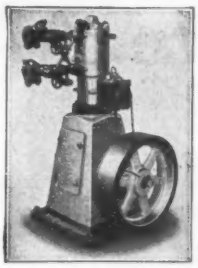
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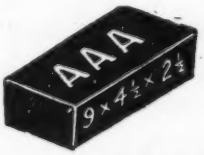
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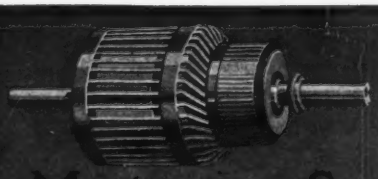
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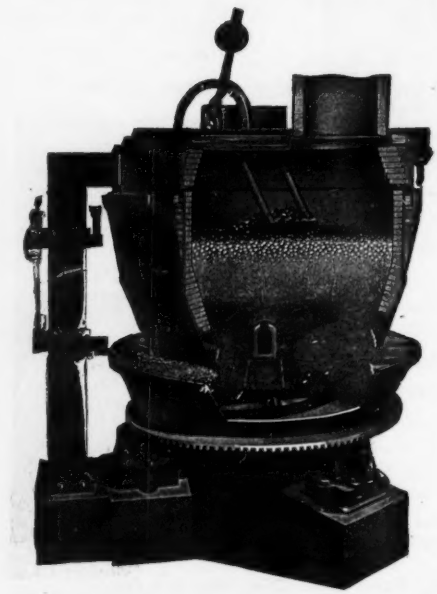
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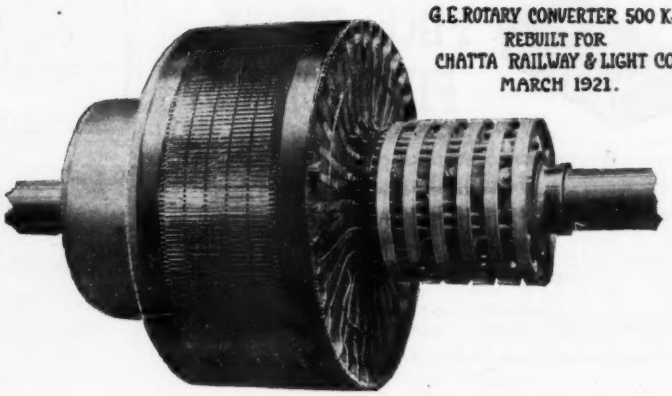
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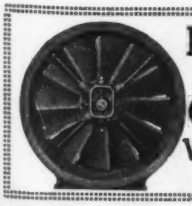
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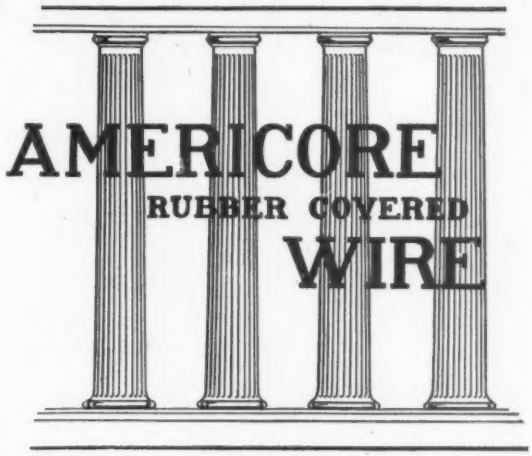
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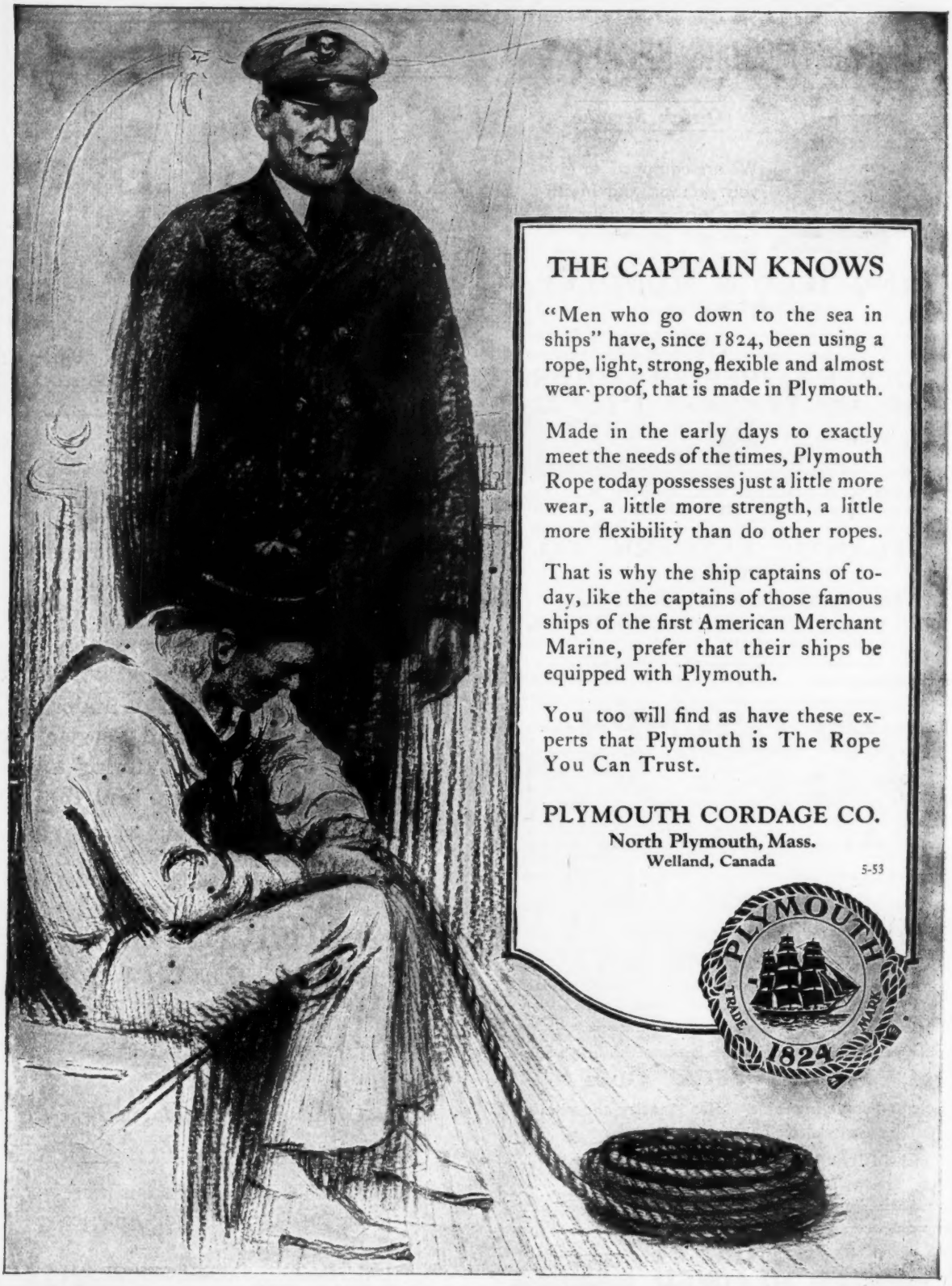
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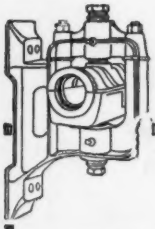
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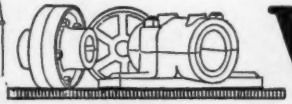
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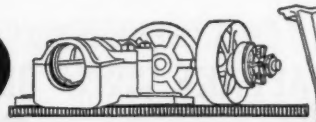
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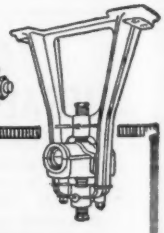
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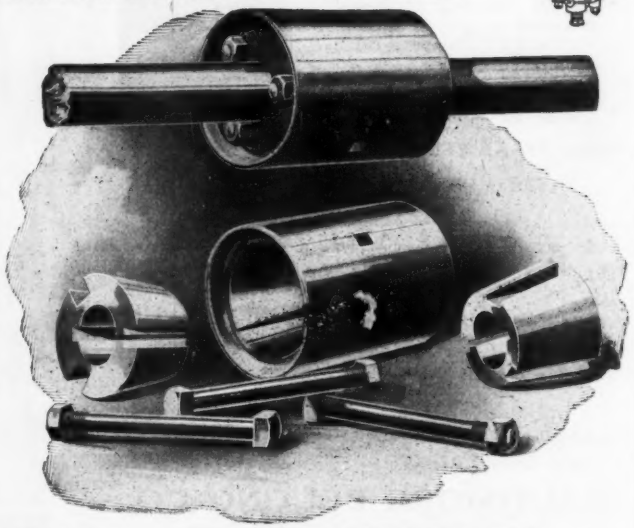


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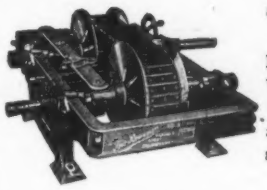
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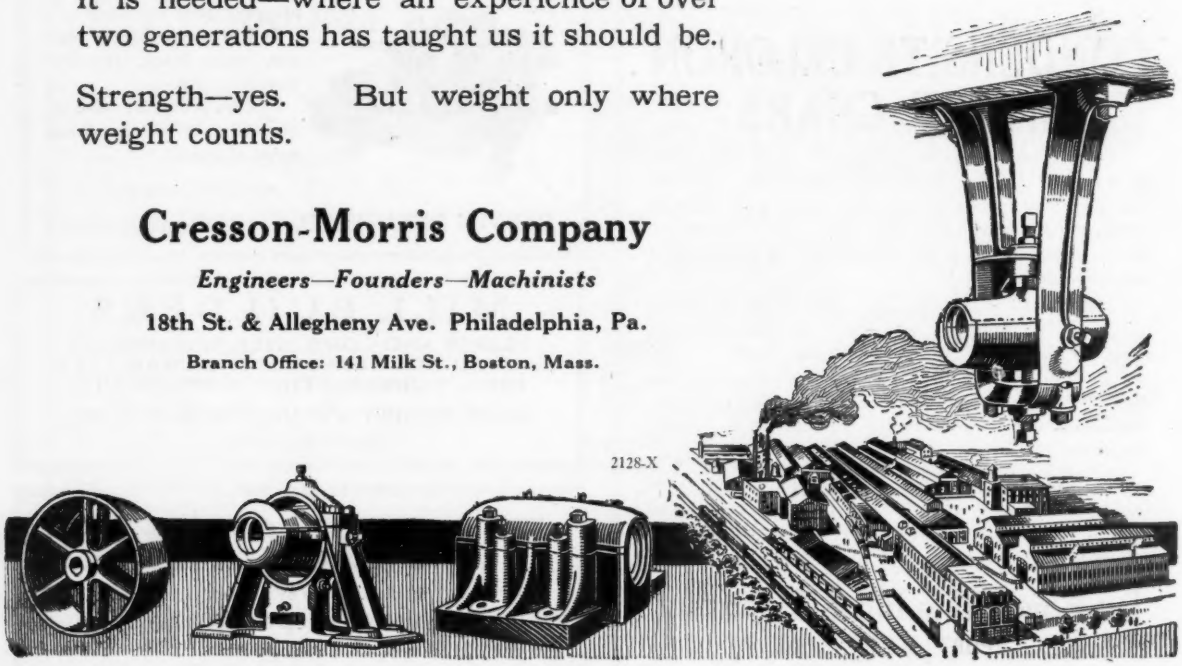
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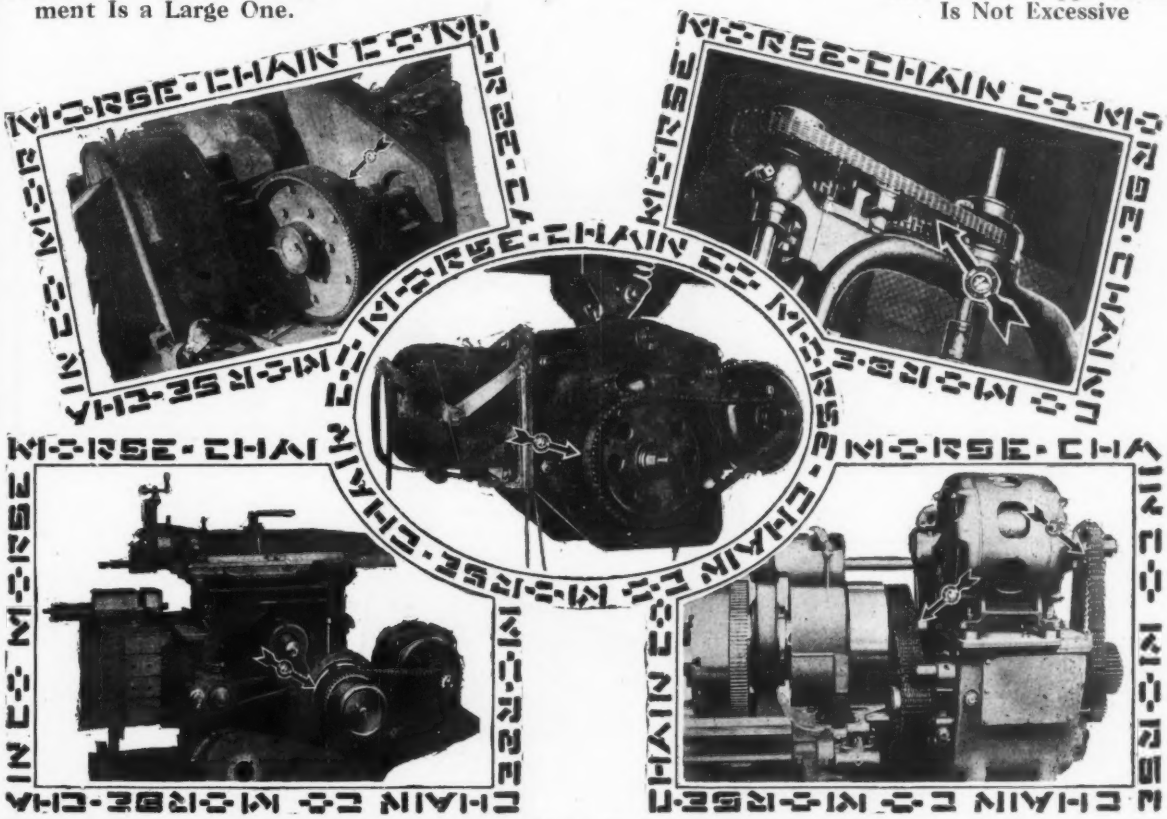
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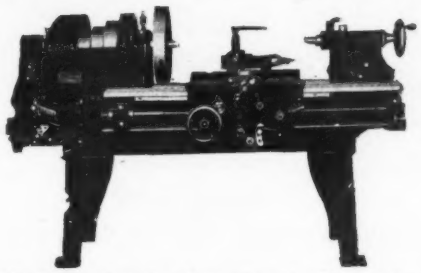
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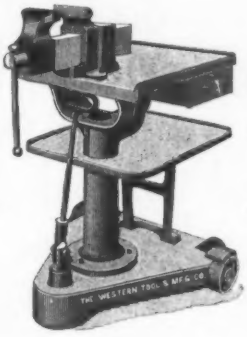
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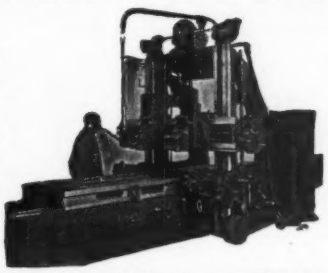
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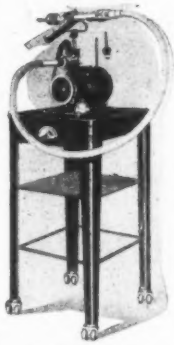
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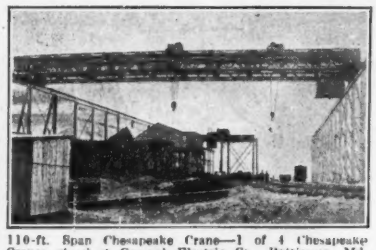
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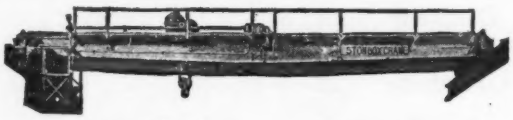
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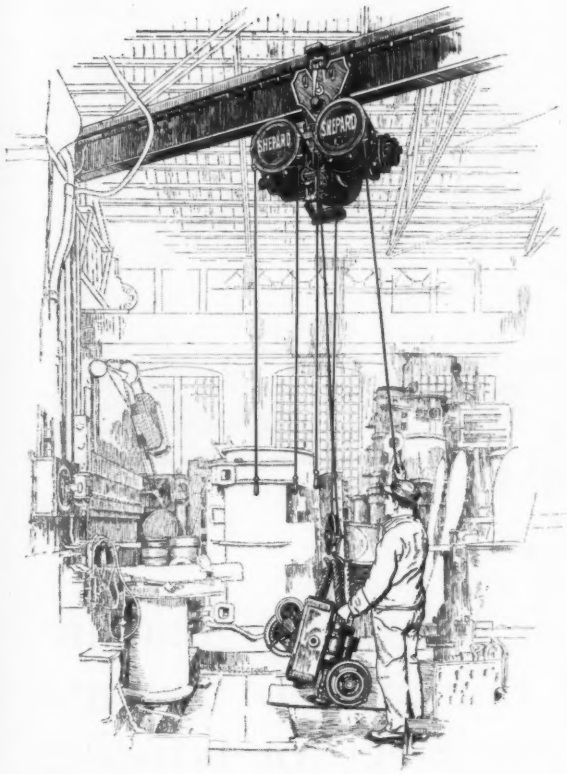
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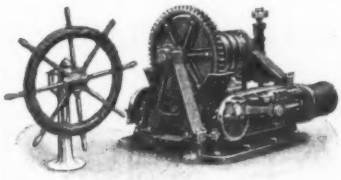


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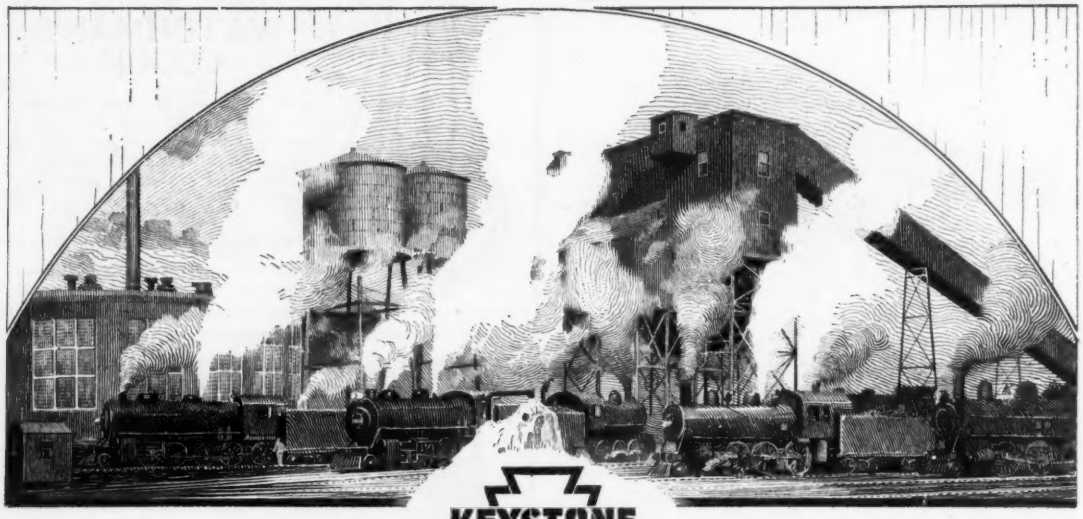
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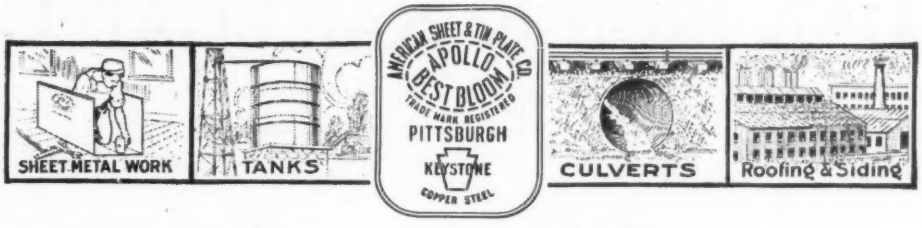
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EXPORT SALES AGENT—Consolidated Steel Corporation, 25 Broadway, New York, N. Y.

ARMCO
INGOT IRON
Resists Rust

Furnace Casings

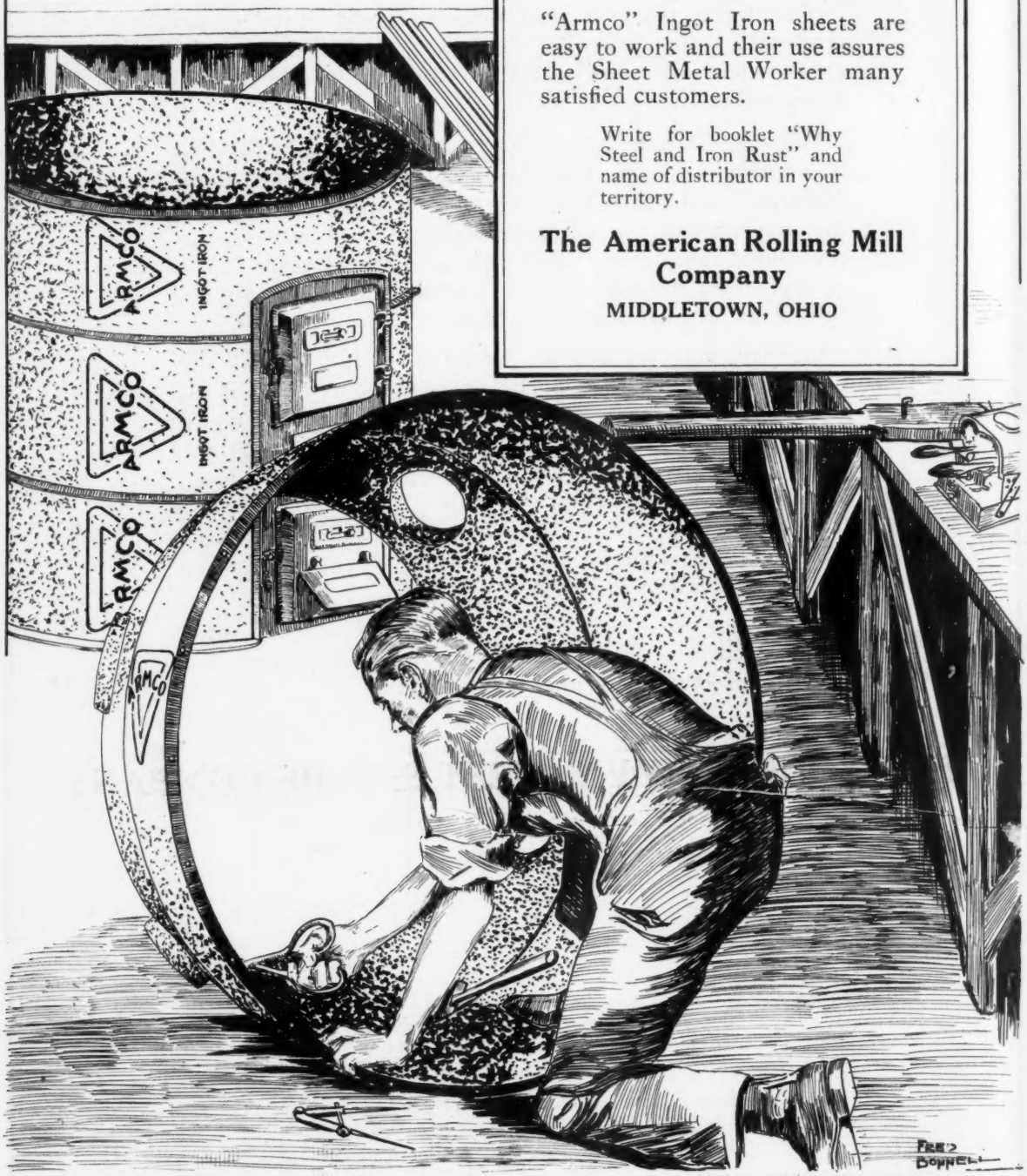
built from "Armco" Ingot Iron galvanized sheets resist the corrosive action of cellar dampness and the severe conditions arising from disuse during the summer months.

"Armco" Ingot Iron sheets are easy to work and their use assures the Sheet Metal Worker many satisfied customers.

Write for booklet "Why Steel and Iron Rust" and name of distributor in your territory.

The American Rolling Mill Company

MIDDLETOWN, OHIO



This Advertisement is the second of a Series on

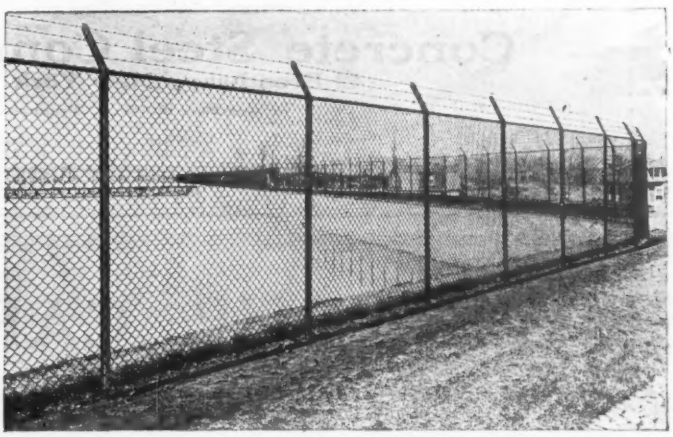
How to Select Factory Fence:

The Top Rail

THE purpose of the top rail is to solidly knit together the entire fence frame — the rail should therefore be strong, and so designed as to form a continuous one-piece member connecting all line posts.

The Afco Top Rail is heavy galvanized wrought pipe, sections being joined with standard threaded couplings. This is not only a stronger construction than the ordinary top rail of light tubing with loose sleeves, but enables grade contours to be closely followed.

The Top Rail passes through a hole in the web of the angle post, just below the overhang, thus locking the entire fence frame together much more positively than by use of separate fittings.



Afco installation at plant of International Paper Co., Berlin, N. H.

Here is a case in point—the Afco method of installing the Top Rail, in combination with the Afco Post and general fence construction, makes it possible to follow every hill and valley without in the least reducing the strength of the fence.

There is no doubt that Afco construction is worth more money than the ordinary type—yet it involves no greater cost to you.

Afco Catalog G-21 fully describes these "Barriers of Steel." May we send you a copy?

American Fence Construction Co.
130 West 34th Street New York

Barriers of Steel
Afco Fences

KEEP HIM OUT

AF-79



Like all warehouses of the Concrete Steel Company, the Birmingham Plant carries large stocks, and is equipped with the most modern machinery for bending and fabricating Havemeyer Reinforcing Bars.

Our Birmingham Warehouse

Typical of our plants everywhere.

The Warehouse Service of the Concrete Steel Company blankets every section of the country thoroughly. Only in rare cases is a job more than a few hours freight run from the nearest stock of Havemeyer Reinforcing Bars and other Havemeyer Products—and usually the steel can be delivered by motor truck.

A steel strike, a freight strike, a railroad embargo, or a delayed rolling mill schedule will not tie up your job if you use Havemeyer Service—for a string of well stocked warehouses insures you against disappointment in the event of an uncontrollable emergency.

Bars can be furnished bent—tagged—fabricated—all ready to drop into the forms. This not only saves you money due to decreased bending costs, but also increases the speed of construction.

The use of HAVEMEYER SUPPORTING and SPACING DEVICES effects additional economies. Steel can be placed more cheaply—and every bar is in its place. **Write for Folders A4 and A8**

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at Birmingham and at other points throughout the South.

Havemeyer Bars
X-Tension Clips
Expanded Metal
Beam-Saddles
Bar Spacers
Corner Bead
Metal Lath
Base Bead
Hy-Chairs
Wall Ties
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Figure the overhead of carrying large stock and uncertain market against small added cost of Warehouse shipment over mill delivery.

Our completely stocked warehouse and yards, and improved transportation —insures immediate delivery of your needs. Let us supply you with

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Bars—Structural—Sheets—Plates—Shafting—Chain—Pipe
Boiler Tubes—Reinforcing Bars—Rivets
Staybolt Iron—Tool Steel—etc.

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Try "CISCO SERVICE" when next in the market

The Cincinnati Iron & Steel Company

CINCINNATI, OHIO

PLATES
PIG IRON
BLOOMS BILLETS SLABS
SHEET AND TIN BAR
SHEETS

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General machine work for our Modern Well Equipped Shops. Large & small tools at your service.

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$1.40 Per Hundred Pounds

We have several thousand tons of 4″ I Beams, 12′ long, 7½ lbs. per ft. 5″ I Beams, 9′ long, 9¾ lbs. per ft. 6″ I Beams, 15′ long, 12¼ lbs. per ft.

ALL NEW, straight—not punched—have slight surface rust.

We are offering these, subject to prior sale, in carload lots, at $1.40 per 100 lbs., f. o. b. Pittsburgh rate points.

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ESTABLISHED 1826
TRADE "A.W." MARK
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PIG IRON, BILLETS, BLOOMS AND SLABS, BOILER PLATES, TANK PLATES, DIAMOND AND RIBBED PATTERN ROLLED STEEL FLOOR PLATES, BLUE ANNEALED STEEL SHEETS

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Birmingham, Ala.

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REMEMBER.

Clifton and Etowah brands of iron come in machine cast pigs. Uniform in size, dependable as to analysis. Free from sand and slag. 2240 pounds of *iron* to the ton.

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Various Steel Products

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Galvanized Wire Nails
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PROMPT SHIPMENTS *Write for Catalogues and Prices* *PROMPT SHIPMENTS*

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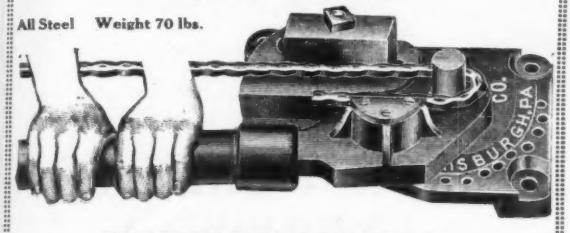
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Capacity 1 1-4 " Rods

All Steel Weight 70 lbs.



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BLACK AND GALVANIZED

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OF EVERY DESCRIPTION

Hoops, Bands, Angles, Channels, Tees, Beams Ovals, Half Ovals, Half Rounds, Hexagons Rounds, Squares, Flats and Special Shapes

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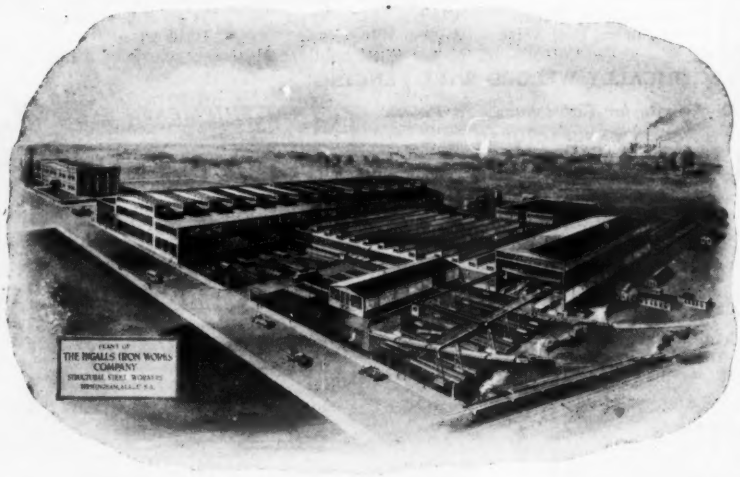
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If you need steel buildings, bridges, tanks, towers or anything of structural steel, we will appreciate your inquiries.

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Plans for Improvements and Alterations at actual cost plus a fixed sum.

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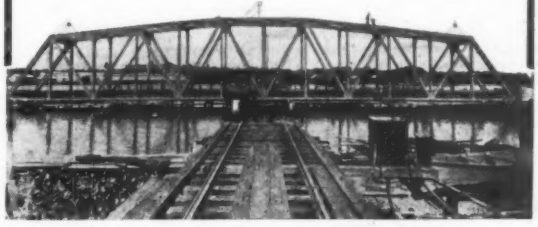
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CAPACITY 60,000 TONS
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The first cost—the buying price—of a screen should not and does not influence the wise buyer. To experienced screen users it cuts but very little figure.

A screen that *gives* out is expensive at any price. Screens that *wear* out in service are the only kind worth considering. For there is a vast difference between *giving* out and *wearing* out.

If there is anything under the sun of which the last cost—the actual service cost—is the true cost, it is screens.

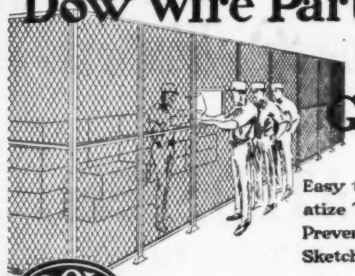
Consider the ordinary screen; the time and labor consumed in frequent changes, to say nothing of loss of production and multiplied frequency of screen purchases, and the low first cost seems insignificant in comparison with its drawbacks.

Keep this in mind: "Perfect" screens give uniform results as long as there remains enough metal to hold them together; for they wear out evenly. When you figure their ton-cost you get the real idea of "Perfect" economy.

Get on the "Perfect" road to better screen service at lower cost.

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Iron Fence and Entrance Gates
For Every Purpose
LAWN VASES SETTEES
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Agents Wanted
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BRASS AND STEEL WIRE WORK OF EVERY DESCRIPTION
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Manufacturers of
STEEL AND CORROSION RESISTING ALLEGHENY IRON PLATES, SHEETS, BOILER TUBES AND PIPE
Ask about Allegheny Iron
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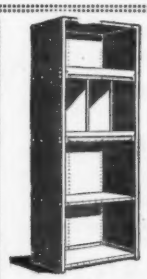


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Steel Joist Hangers
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Assured Carrying Capacities
Definite Construction Details
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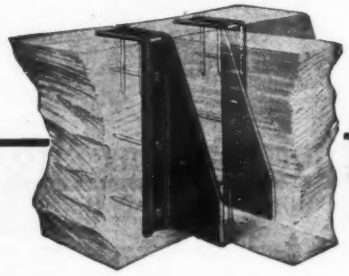
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Correct Design Assured Capacities

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In choosing the skylight the item of maintenance is one of the largest considerations.

The "ANTI-PLUVIUS" PUTTYLESS SKYLIGHT

resists corrosion from water and gases, holds firm against snow load and wind pressure and is guarded thoroughly against glass breakage.

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Manufacturers of

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GARAGE DOOR HARDWARE

You'll never hear an owner whose garage doors are equipped with "Slidetite" hangers complain of a damaged car due to accidentally closed doors. It can't happen when "Slidetite" is used. The "Slidetite" folding arrangement, with no obstructing joints on the carriers, gives a free acting, easily operated door which folds up flat against the wall, completely out of the way. A touch of the finger opens or closes the door at will. You should know all about "Slidetite" hardware before installing any other make.

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No other to equal it

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"Means they'll work right"

Richards-Wilcox Mfg. Co.
A Hanger for any Door that Slides
CHICAGO ST. LOUIS LOS ANGELES PHILADELPHIA — AURORA, ILLINOIS, U.S.A. — CLEVELAND — INDIANAPOLIS — LONDON, ONT. — BOSTON NEW YORK MINNEAPOLIS SAN FRANCISCO



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STAYON DOOR HANGERS

It is a waste of time and money to use lightweight, undersize door hangers on your barns, garages, warehouse and factory buildings. Provide them with easy-running, stay-on-the-track, sliding doorways by the use of MYERS STAYON ADJUSTABLE DOOR HANGERS and TRACK. Heavy malleable iron frame, tandem rollers mounted on steel axles, surrounded by steel roller bearings, double stayon device, adjustable and flexible features insure economical "Easy to Push or Pull" doorways. Catalogs and prices on request.

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Engineering Without Obligation
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SLOW SPEED FANS AND BLOW PIPE SYSTEMS

For Woodworking Factories and Dust Producing Machinery.
Complete Equipments Furnished and Installed.

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Exhaust Fans **Dust Collectors** **Sheet Iron Work**
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Standard for Forty-five Years

ROLLING STEEL DOORS

"Underwriter's Label Service"

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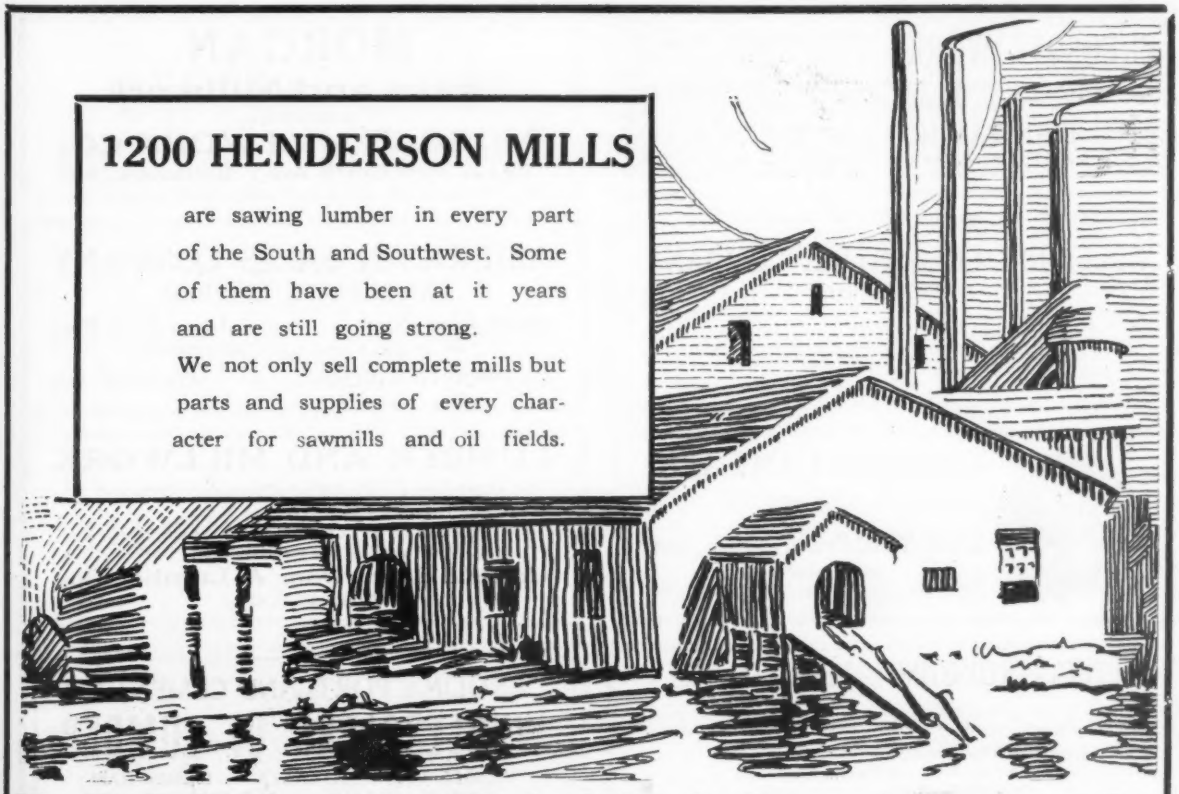
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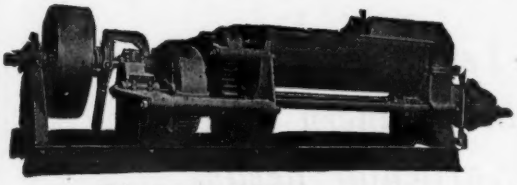
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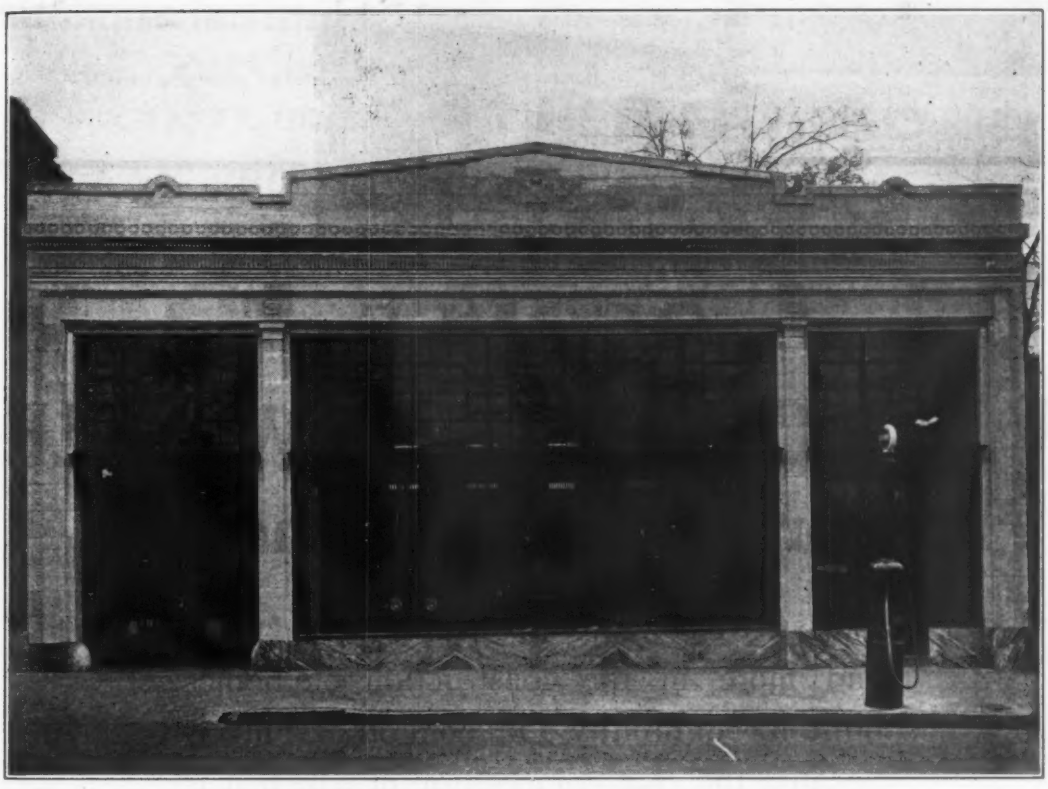
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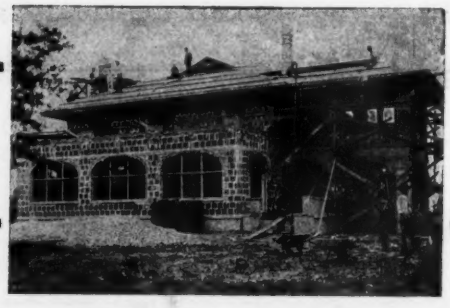
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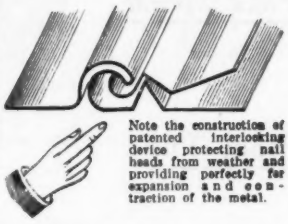
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Its extreme lightness (about one-eighth that of slate), durability and moderate cost commend it to those wishing something out of the ordinary in roofing.

Manufactured from best quality Worcester Grade Terne Plate, furnished painted or "Tightcote" galvanized, size 10x14 inches.

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Will be good as new when the building is obsolete

And during all the years of roofing Service that American Cement Tile will give you—

You will not have spent one penny for repairs from damage ordinarily caused by fire or the elements.

Does that appeal to your keen business judgement?

Then add to it the fact that we manufacture, lay and guarantee this roofing OURSELVES—

And you can readily understand why big plant executives all over the country specify it.

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We will gladly send you our complete literature.

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METAL SHINGLES

When it comes to Galvanized Shingles use Cortright Hand Dipped. They are first formed of prime roofing tin and then coated separately in a zinc bath receiving a heavy coating on both sides.

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ZINC ROOFINGS
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Zinc sheets—corrugated or V-crimp types—resist rust and weather and last for centuries without painting or replacing. Anybody can put it on. A better roof at half the cost of copper.

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Stops the car absolutely level with the floor landing, saving considerable time in handling passengers or freight. If you are interested, write us for information.

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Of All Sad Words of Tongue or Pen the Saddest are These

"THE OLD HAS BEEN"

The other day at lunch at a club we asked the girl who waited upon us what her name was.

"Oh I got a mule name," said the girl.

"A mule name? What is it?"

"Maud," replied the discouraged girl.

"Why, Sister, that's a fine poetical name."

Then we recited Tennyson to her, "Come into the garden Maud," and then we gave her "Maud Muller on a summer day raked the meadow rich with hay" and wound up with the above couplet; or something like it, from friend Whittier.

And do you know it actually put a song of joy into the little woman's heart when she found she really had a name so noble it was loved by two of the greatest poets.

But we are talking about professional men. Architects and Engineers, and not Girls who serve at tables.

Don't you know that this is "the day of young men"?

When your hair whitens and vanishes, when your teeth become golden, your efficiency is open to suspicion anyway.

"Old men for council young men for action."

You can guess what is likely to happen when you make such a break as to give the client who has steam, Electric Elevators, when he could have used Ridgway Elevators.

AND HE FINDS IT OUT—OH BOY!

The Smart Live Up to Date Engineer will certainly

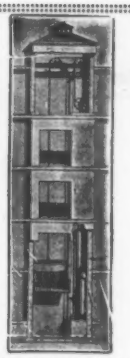
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Special Lifts for Newspaper Plants, Abattoirs, etc.

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Westbrook ELEVATORS

The Westbrook is the result of careful study and tests of competent engineers.



Single Wrap Traction Type Machine

FOR PASSENGER AND FREIGHT SERVICE

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Built by

AMERICAN ELEVATOR and MACHINE CO.

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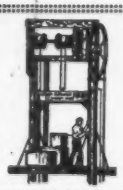
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Carrere and Hastings, Architects; Fred T. Ley Company, Contractors. Master Mix was used in the brick mortar to prevent freezing and in concrete floor finish work throughout this building.

Master Mix for Brick Mortar

FRED T. LEY & CO., INC.
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August 26th 1921

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Gentlemen:—

We are pleased to advise that we made use of your Master Mix material for its anti-freeze qualities on the Liggett Building at 42nd Street and Madison Ave., the Fisk Building at 57th Street and Broadway and the large Apartment Building at 290 Park Avenue with very gratifying results. The use of this material made work possible in temperatures far below that in which we could have ordinarily worked.

We have also had experience with Master Mix in granolithic floors laid during severe weather; and which, in addition to the retarding feature against freezing, gave a very good wearing surface to the floor.

Very truly yours,
FRED T. LEY & CO., INC.
By: *Frank B. Rogers*

HERE'S speed on winter construction you never thought possible. No risk, no uncertainty—or expensive delays—when you use Master Mix. Construction goes on as fast as in summer and just as easily. Results are sure—and your capital and labor are released much quicker for other work.

Master Mix not only prevents freezing of brick mortar, it accelerates the set, waterproofs the mortar, hardens it and increases tensile strength, helping to finish the work in record time.

Let us send you our "Book of Masterbuilt Floors"—you'll find additional information in it about Master Mix for brick construction and successful concreting at ordinary low temperatures.

For specifications see Sweet's Catalog, Architectural Edition, pages 86-87; Engineering Edition, pages 260-261.

The Master Builders Company
Main Office & Works, Cleveland, Ohio, U. S. A.
Specialists in Concrete Floor Finish Construction

Masterbuilt Floors

Awarded Silver Medal at Premier Exposition

MASTER BUILDERS HARDNER. An integral metallic hardner for hardening and dust-proofing cement floors. Either gray or red color.

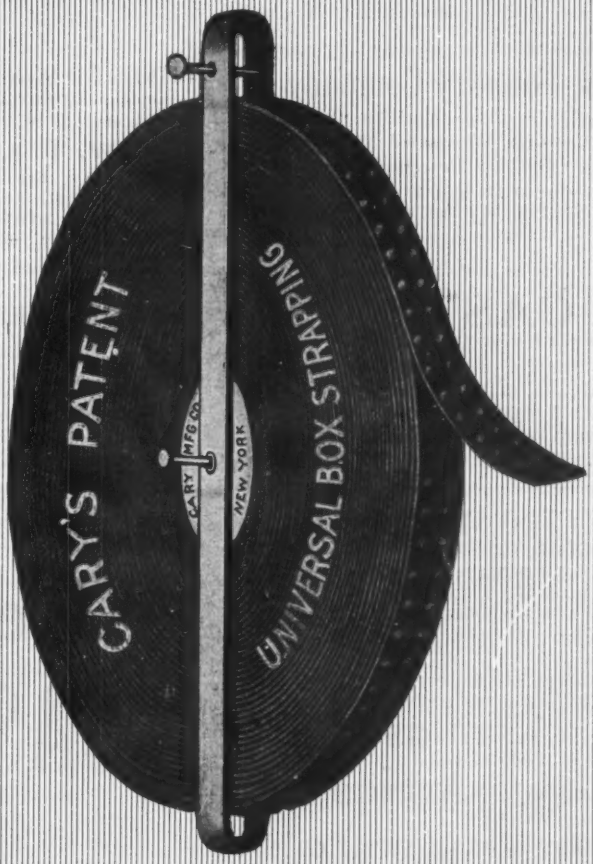
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Practical Building Arts, Paris 1919

MASTER MIX, An integral cement accelerator-hardner, water-proofer and anti-freeze compound.

SANISEAL, A liquid preparation for hardening and dustproofing cement floors after they are laid. Also furnished in crystal form.

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"UNIVERSAL" BOX STRAP



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FORGINGS
QUALITY GUARANTEED PROMPT SHIPMENT
No Order Too Large—None Too Small for Our Careful Attention
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GENERAL MACHINE WORK
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Engineers and Machinists
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STEEL CASTINGS
Weighing from 1 lb. to 300 lbs. each
Suitable for Dogs, Clamps, Wheels, Pinions and other castings where strength is required.
Used almost exclusively for Automobile Work.
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GREY IRON CASTINGS
Any Weight
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HIGH GRADE MALLEABLES
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Made to specified tensile or transverse strength tests.
We are in a position to furnish you castings from your blueprints.
Let us figure on your requirements.
We are serving many of the most prominent manufacturing industries in these United States to their entire satisfaction.
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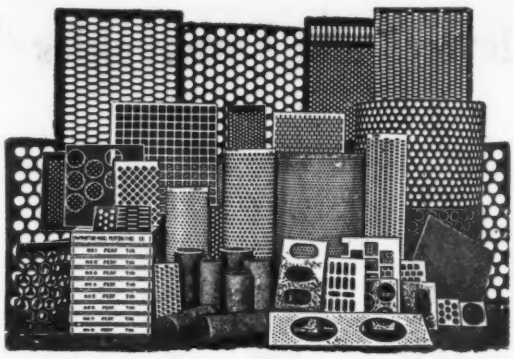
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All Sizes and Shapes of Holes
In Any Kind of Metal
FOR USE IN

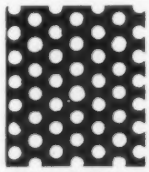
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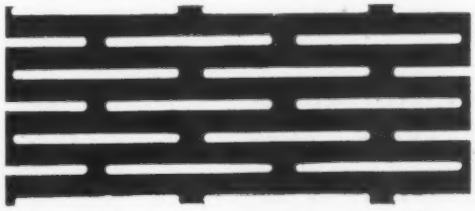
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Send for Samples
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American Pattern Works Company
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For Ores, Coal, Stone, Gravel, Cement, Sand, Clay, Cotton-Seed Oil Mills, Cotton Gins, Phosphate Mines, Fertilizer Plants, Cyanide Works, Chemical Works, Etc.

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Bethlehem Sleeve Nuts, Clevices and Turnbuckles



Bethlehem Sleeve Nuts, Clevices and Turnbuckles are made exclusively from materials produced in Bethlehem Plants and are uniform in their composition, strength and finish. Physical tests have shown these connecting forgings to sustain a greater strain than any wrought iron or soft steel rod of equivalent size.

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General Offices: BETHLEHEM, PA.

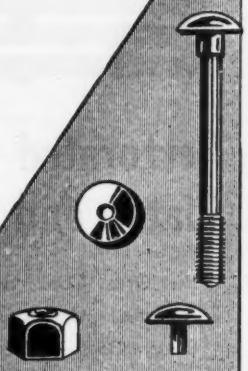
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SOLE EXPORTER OF OUR COMMERCIAL PRODUCTS CONSTEEL CONSOLIDATED STEEL CORPORATION 25 BROADWAY, NEW YORK, U. S. A.

BOLTS, FORGINGS RIVETS, WASHERS PICKS, CROW BARS. WEDGES, WAGON IRONS AND SINGLE TREE TRIMMINGS, TELEPHONE AND TELEGRAPH POLE LINE HARDWARE. SCREW RAILROAD SPIKES AND BOAT SPIKES, STEEL BARS AND CONCRETE REINFORCEMENT BARS.

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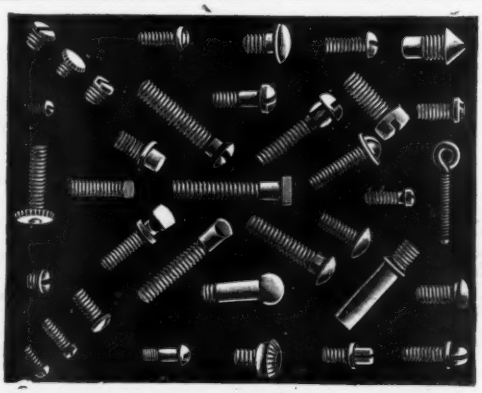
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STANDARD AND SPECIAL MACHINE

SCREWS

—MANUFACTURERS OF—

Rivets, Studs, Sink Bolts, Stove Bolts, Closet Screws, Bulb Wires, Threaded Wires, Safety Set Screws, Square Iron Nuts

Special Screws and Rivets made to order. We please those discriminating manufacturers who require something better than is usually supplied.

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MOLDING SANDS ALL KINDS

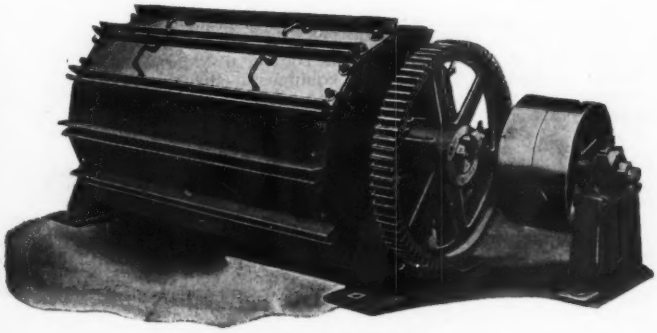


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The Turn Has Come

The South Leads the Country on the Road to Prosperity.

The steady rise in the price of cotton during the past sixty days will add over $500,000,000 to the purchasing power of the South and will probably go far beyond that figure.

This means that a vast amount of money will be turned loose in the Southern States.

Added to this splendid increase in cotton values is the great progress made in diversified farming, the enlarged production of foodstuffs, the greatest peach and watermelon crop ever raised and shipped to the North at profitable prices. Georgia alone shipped nearly 11,000 car loads of peaches.

Building activities are increasing, while public construction work is being pushed with great vigor, especially road building, for which vast sums are available and which in the South can be carried on uninterruptedly through winter months.

All of these evidences emphasize the fact that the South is the first section of the country to show a real business revival. Out of all this activity is coming a large and steadily expanding demand for equipment, machinery, materials and supplies of every kind, making the South unusually attractive as a sales field to business men.

Delayed or suspended advertising plans for Southern business can be put into effect now with good assurance that such advertising will materially help you in securing a share of the business developing from these upward movements.

The Manufacturers Record, as the South's leading business, industrial and construction weekly paper is well equipped to place your business effectively before the active forces of this section.

Manufacturers Record

Exponent of America

MEMBER
Associated Business Papers, Inc.
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VENEER MACHINERY
LATEST IMPROVED

FOUNDER & MACHINIST

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Located in the heart of the wholesale and retail sections. Well lighted Sample Rooms. Attractive Cafeteria at Popular Prices. Beautifully decorated private dining rooms. Large Ball-room or Convention Hall, seating 500 people. Open Air Roof Garden (Open Season)



Every Room with private bath or shower

Rooms at $4.00 per Day and Up

The SOUTHERN HOTEL

Fireproof Modern Convenient

LIGHT AND REDWOOD STS.

BALTIMORE, MD.

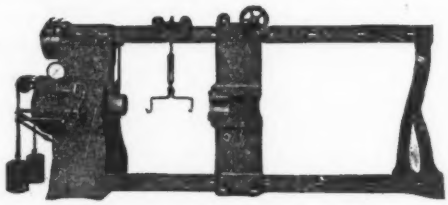
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For all requirements of Ginners and Growers, Write to nearest Continental Sales Office for Catalog H.

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MUCH LESS EXPENSIVE THAN YOU THINK



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THE PRICE IS RIGHT 30 SIZES THE PRESS IS RIGHT

Most Popular Press on the Market. Ask Your Dealer

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THE WHITINSVILLE SPINNING RING CO. WHITINSVILLE MASS. SPINNING RING SPECIALISTS SINCE 1873

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Automatic or Plain

The Crompton & Knowles Loom Works is the largest builder of plain and fancy weaving machinery in the world.

We make looms to weave every known woven fabric, such as woolen, worsted, silk, gingham, towel, duck, tire fabric, cord fabric, blanket, tape, sisal, etc.

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FOR COTTONSEED, PEANUT AND BEAN OIL MILLS

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WE MANUFACTURE A FULL LINE OF **OIL MILL MACHINERY**

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ENGINEER and CONTRACTOR

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OIL MILLING and REFINING EQUIPMENTS

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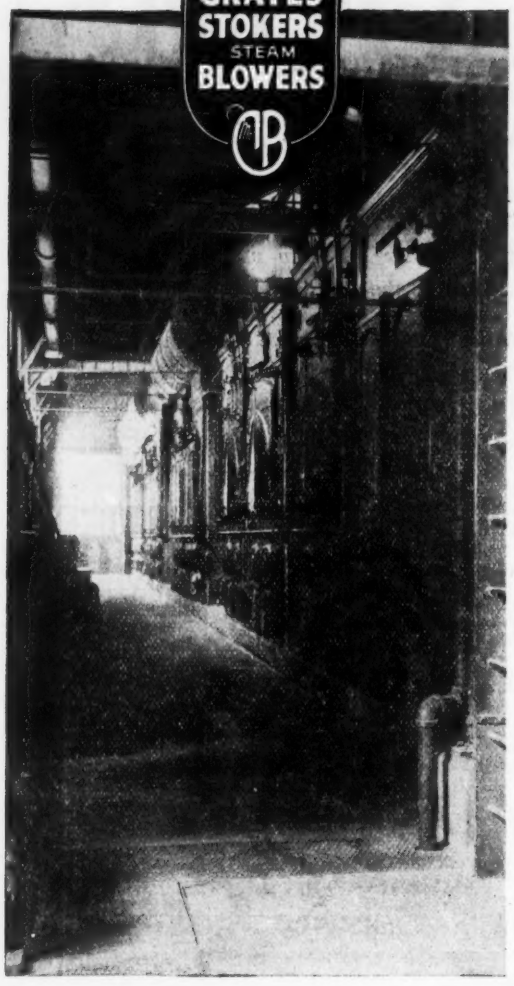
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Office and Warehouse 110-112 EAST McBEE AVE.

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GRATES
STOKERS
STEAM
BLOWERS



Can You Manufacture Your Own Power Cheaper Than You Can Buy It?

THE reason that the central stations can sell power cheaper than many industrial establishments can make it in their own boilers is because they so operate their plants that they convert into power every available unit of heat in their coal.

They manufacture power to sell it at a profit. If what you sold were power, you would insist upon having your production costs as low as possible.

In no other single department of your plant can you make greater economies than in the boiler room where from 60% to 80% of your power costs are absorbed by the changing of coal into steam.

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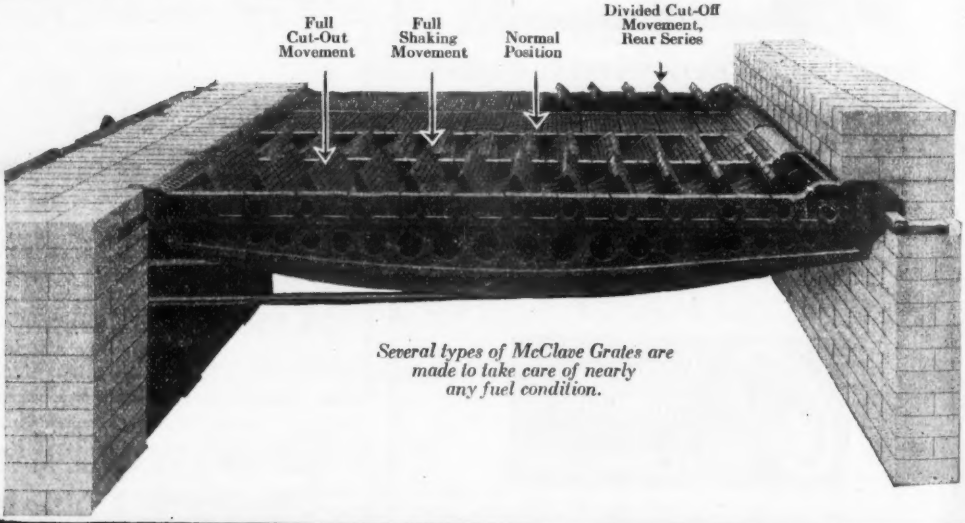
Boston: 261 Franklin Street
A. R. St. John, Manager

Syracuse: 130 Hope Avenue
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Dallas: 705 Elm Street
D. G. Counts, Representative

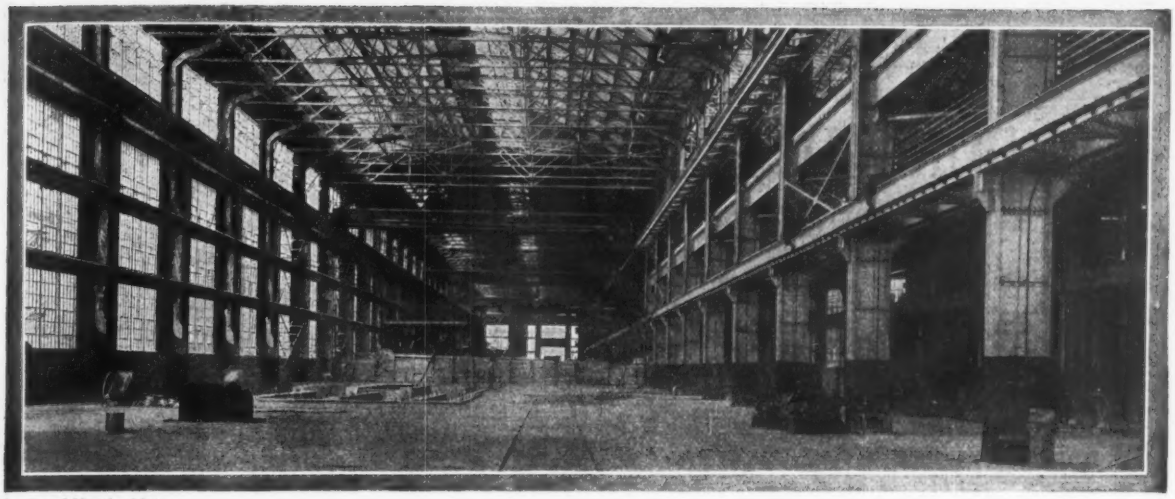
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Where stokers cannot be installed, shaking and dumping grates with properly proportioned air spaces can secure important economies.



Several types of McClave Grates are made to take care of nearly any fuel condition.

McClave COMBUSTION SYSTEMS *for greater economy*



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Westinghouse Electric & Mfg. Co., Lester, Pa.

The Measure of Ability

We Design,
Manufacture and Erect
Structural Steel
for
Bridges and Viaducts
Train Sheds and Warehouses
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Power Houses
Machine Shops and Foundries
Ore Bridges and Bins
Steel Structures for
Every Purpose
McClintic-Marshall
Annual Capacity, 400,000 Tons

THE true measure of a firm's ability to perform satisfactorily is gauged by its past achievements.

Measured by the number of structures erected, the amount of tonnage fabricated, our years of experience and the extent of our facilities, it is evident why we have become the largest independent steel constructors in the world.

At your request we will gladly send you a publication illustrating our work. Ask for portfolio No. I 234.

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CINCINNATI, OHIO, Union Central Building
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Industrial Engineering Service

103 Park Ave. NEW YORK.

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Investment in materials (raw, in-process, and finished) should be turned over not less than six times a year.

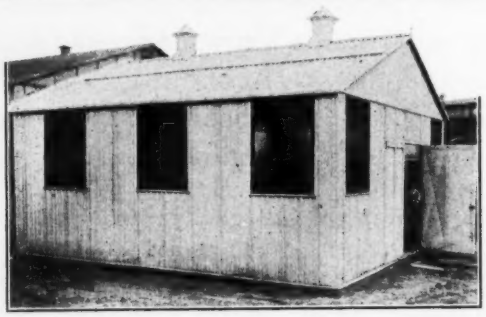
Slow movement of material ties up capital in inventories, and makes for annoying delays in service to customers.

Small lots can be produced with economy to keep investment down.

Purchasing and production can be synchronized with sales.

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On your solicitation we will gladly go into interesting details of accomplishment.



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YOU can increase your factory floor-space —add offices, machinery shelters, experimental buildings—immediately, at but a small part of the expense of concrete, brick or wood structures.

Maryland Metal Buildings are not temporary sheds but *permanent buildings*, ready for delivery in interchangeable sections—erected by unskilled labor. They are sturdy, durable, *everlasting* because made of 24 gauge, Rust Resisting

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A building to meet your individual requirements can be shipped from stock and erected under our supervision. Let us quote you today.

MARYLAND METAL BUILDING COMPANY
Manufacturers
801-2 MUNSEY BLDG., BALTIMORE, MD. Phone St. Paul 7498

When You Issue a Catalog

Remember

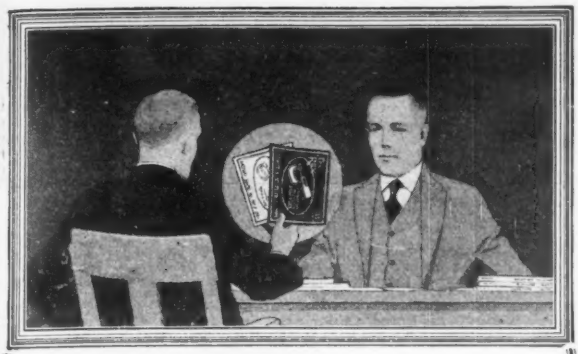
The effect of a well-printed, well-arranged catalog is so beneficial to the house issuing it that beyond any doubt it pays to get the best work.

We specialize *high-class catalog productions.*

Whenever you are in the market for printed matter, write us.

If you have a problem that is too great for your printer, turn it over to us.

Fleet-McGinley Company
PRINTERS
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Sure Guides to Effective Advertising— PHOTOSTAT Prints

PHOTOSTAT Prints show you just how your advertisemem't will look in print. They tell you whether dark or light backgrounds will be more effective and what arrangement of copy will be most attractive.

Because PHOTOSTAT copies can be made at original size, enlarged, or reduced, they show you layouts and drawings at finished sizes and so again save a great deal of time and expense to the advertising department.

In the drafting room also the PHOTOSTAT saves hours and often days of time because it copies pencil sketches and drawings and so eliminates tracing and blue printing. In addition it copies blue prints, maps, production charts, test reports, catalog pages, contracts, in fact anything and everything drawn, written or printed, either at original size, enlarged, or reduced.

THE PHOTOSTAT MAKES NO MISTAKES: It makes Facsimile copies.

Write for our booklet of letters from a few of our friends in which they tell of the thousands of dollars the PHOTOSTAT has made and saved for them.

PHOTOSTAT CORPORATION

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7 Dey Street, New York City — 510 North American Bldg., Philadelphia
429 Monadnock Bldg., San Francisco,
700 Tenth Street, N. W., Washington
Executive Office: Providence, R. I.

AGENCIES:

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Graham Brothers, Stockholm.

PHOTOSTAT

Experience, Ability and Confidence Landed the Columbia Graphophone Contract

Confidence is not misplaced when your problem is in the hands of an organization of competent men of wide experience and ability. Our organization is equipped to prepare complete plans and specifications and execute the construction, or we will handle the construction only.

We were able to construct the entire plant and seven miles of railroad tracks for the Columbia Graphophone Factories Corporation in seven months, in spite of railroad strikes, scarcity of materials, and labor troubles during the Summer of 1920, at a cost of $4,000,000.

If you contemplate construction of any character, we would like to discuss it with you.

THE M·A·LONG CO.

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MUNSEY · BUILDING · BALTIMORE

Room 201-E Hudson Terminal Building
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Cabinet Factory for the Columbia Graphophone Factories Corporation, Baltimore, Maryland, containing 570,000 square feet of floor space. Designed by Engineering Department Columbia Graphophone Manufacturing Co.

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SCHOEDINGER'S ROTARY SUCTION VENTILATORS

induce suction on the foul air in your plant from the power of passing winds. They are well worth your investigation.



Also secure prices on Schoedinger's Universal Lock Joint Metal Ceilings, Kinnear & Gager Quad Lock Metal Ceilings, Underwriter's Fire Proof Metal Windows, Underwriter's Tin Clad Fire Doors.

F. O. SCHOEDINGER

Manufacturer and Distributer of Sheet Metal Products

COLUMBUS - OHIO

DIRECTORY

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CONTRACTORS CHEMICAL ENGINEERS

Detailed classification of specialized work undertaken by those having cards in this Directory will be found in Classified Index.

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DANIEL B. LUTEN
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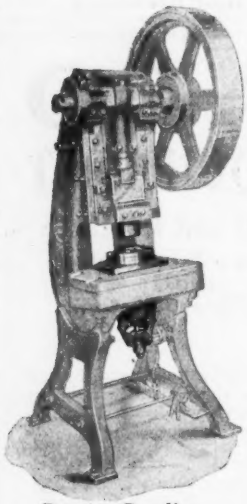
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PUBLISHED EVERY THURSDAY BY THE

MANUFACTURERS RECORD PUBLISHING CO., BALTIMORE, MD.

Branch Offices: New York, 30 Church St.; Chicago, 11 South La Salle St.; Boston, 734 Old South Bldg.; St. Louis, 915 Olive St Washington, Whaley-Eaton Service, 456-459 Munsey Building.

SUBSCRIPTION RATES

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See Page 3

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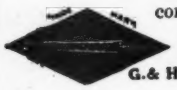
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Vol. LXXX, No. 14 WEEKLY. | BALTIMORE, OCTOBER 6, 1921. | SINGLE COPIES, 20 CENTS, $6.50 A YEAR.

PUBLISHED EVERY THURSDAY BY THE

MANUFACTURERS RECORD PUBLISHING CO.

Office: Manufacturers Record Building, Cor. Commerce and Water Sts.

BALTIMORE, MARYLAND

RICHARD H. EDMONDS, President — VICTOR H. POWER, Treasurer

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CHICAGO, 11 So. La Salle St. — NEW YORK, 30 Church St.

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WHAT HAPPENED AT THE CHARLOTTE BANQUET?

UNDER the heading, "Harding at the Banquet", the Charlotte Observer, which has been an aggressive upholder of Governor Harding of the Federal Reserve Board and the management of the Board, says Mr. Harding looked at the banquet "as sour as the pickle he handed out," and it added: "He functioned on this occasion pretty much as a wet hen standing on tip toes in the center of the table and shaking her feathers in the faces of the guests." That certainly is going some.

The Charlotte papers had enthusiastically welcomed Governor Harding to a banquet at which he was to discuss the Federal Reserve System, as though he was one of the really great men of the country, but after he got through and left the town, the Observer in its editorial from which we have quoted spoke out in public as follows:

"Mr. David Ovens has been inclined to speak his mind in public on the lack of appreciation of the proprieties, as put in evidence by Governor Harding, of the Federal Reserve Board, on a recent occasion in this city, when he was honor guest at a function given by the American Trust Company to bankers and business men of two States. It was remarked that Mr. Harding was altogether inhospitable to the excellent opportunity afforded to give some sort of token of pleasure at finding himself in the company of so representative a set of men as those which surrounded him. The occasion was inviting to some kind of word for the enterprise and public spirited policy of an institution which had made it possible, but the speaker of the day was out of tune with the general air of jollity and good fellowship which prevaded the very atmosphere. To all of that he appeared unconscious. His look was as sour as the pickle he handed out. He functioned on this occasion pretty much as a wet hen standing on tiptoes in the center of the table and shaking her feathers in the faces of the guests. People who read Ovens' remarks in yesterday's Observer may have seen where he left the door invitingly open to us, but we didn't know he was going to do it, or, having such sentiments in mind, was gifted with the backbone to say it in public."

NOW IS THE TIME FOR CONSTRUCTION WORK

THE welfare of the nation, viewed from every standpoint—industrial, financial and political—demands that every piece of construction work by counties, cities and states which can be done should be put under contract as rapidly as possible. Every community owes a responsibility to itself and to the nation to carry on construction work, for it owes a duty wherever employment can be wisely created that this should be done at the present time.

It would be worse than folly to waste money in building a house which would never be needed, or draining a piece of land which could never be farmed; and some people,—occasionally some bankers,—look upon all municipal construction activities from that viewpoint, as though that covered all construction work.

Some people have seriously advocated that no construction work should be carried on during this winter in order that labor might be forced to a lower level and the cost of materials reduced. That is a false basis; false economic policy; false humanity; false political policy. Through no fault of their own about 5,000,000 people are out of work, and this means from 15,000,000 to 20,000,000 people in their families who will this winter suffer for foodstuffs and clothes and fuel, unless work can be found for these idle hands,—idle not from desire, but from lack of opportunity. And idle hands are the devil's best weapons for creating Bolshevism.

Let it be granted that many of these people are inefficient; that they do not work as vigorously as they should do. Let it be granted that some of them are demanding higher wages than can be profitably paid. But even then there are enough honest-hearted, willing workers among these unemployed men to do the work which needs to be done.

The building of highways, for instance, is not a piece of work merely for the purpose of creating employment. Good highways return manyfold interest on the cost. We doubt whether a good highway has ever been built in this country in which the benefit to the community did not far exceed the total investment. The community is enriched by highways. Every dollar that it wisely invests comes back to it doubled and quadrupled in value. Good streets mean cleanliness and increased health and more comforts for the communities in which they are built. Larger and better water supplies and sewerage systems are, if only from the matter of health, worth far more than they cost.

There is a scarcity of school facilities in the public schools and in the colleges and universities of the country which is alarming to all right-thinking people. There is scarcely a city of any importance in the country in which the public schools are not so overcrowded as to endanger the lives of the children; and so far as we can learn nearly every college in the country has had to refuse students because of being overcrowded. Many colleges report applications

from students double their facilities, while others have turned off from fifty or one hundred to many hundreds.

Public school and college buildings are needed as never before in the history of our country. Our school population has far outgrown our school housing facilities. We are short about 1,500,000 dwellings. We have thousands and hundreds of thousands of bad roads which cost the communities far more than would be the cost of a modern highway. Money invested in these improvements is, therefore, adding to the wealth and the health of all the people. This money increases wealth. It stimulates business. It advances the social and religious, moral and educational activities of the people.

This is the time of all times in the history of the country for men to move with celerity in putting under contract every piece of work of this kind for which provision can be wisely made. This does not mean useless extravagance in erecting buildings which are not needed, whether they be schools or dwellings. It does not mean building of highways where there is no traffic for them. But it does mean the building of tens of thousands of miles of highways so badly needed that their cost would be returned manyfold to the country. It does mean the building of water works and sewerage systems, the paving of streets, the reclamation on a large scale of cutover and overflowed lands. It does mean that the lifeblood of every community must be turned into an intelligent, aggressive campaign for improvement of local conditions, and in the next few years business will be so active throughout this country that it will be very difficult to secure labor for the things which can now be done to advantage.

If the Washington Employment Conference accomplishes nothing else than centering public attention upon the necessity of construction work, upon the duty which every community owes to itself and to the country, and of doing this work, it will have accomplished much good. Some of the discussions which have gone on there have been of a trivial character; but the existence of the conference may in itself stimulate the country to the doing of the things which need to be done now.

Let's build, and build at once. Build every chicken coop that is needed. Build every dog house that is required. Build every school which is sadly needed and for which the money is available. Build better streets that the towns and cities may be cleaner and life longer. Build better highways that the mental, moral and spiritual life of these communities may be advanced, and that traffic may be carried on these highways to meet the shortage of transportation facilities by the railroads.

Now is the time for work—work of the most aggressive character in a campaign of this kind.

DECREASE IN IMPORTANT FOOD SUPPLIES

FACTS of startling significance as to the decreasing production of butter during the eleven years from 1909 to 1920 and the relative small increase in chickens and eggs are given elsewhere in this issue. With an increase of population during that period of nearly 15% there was a decrease in butter production of 28% and a gain of less than 3% in the number of chickens raised and a gain of less than 6% in the production of eggs. In 1909 there was an average production of butter of 10⅞ pounds per capita, while in 1919 the production had dropped to 6⅞ pounds per capita. In 1909 we imported of butter and butter substitutes 646,000 pounds. By 1919 this had increased to 9,519,368 pounds. In 1920 we had the startling increase to 37,454,172 pounds or nearly four times as much as the importation of butter and butter substitutes the preceding year.

In 1909 the average production of eggs per capita was 17 dozen. In 1919 this had fallen to 15⅝ dozen per capita In 1909 we imported 288,650 dozen eggs. In 1919 we imported 1,247,000 dozen. During the first eight months of 1921 we imported 2,620,643 dozen. Of dried and frozen eggs, the former coming very largely from China, we imported in 1910 869,923 pounds; in 1919, 24,890,621 pounds, and in 1920, 29,022,577 pounds.

Our total production of eggs in 1909 was 1,574,979,416 dozen and in 1919, 1,656,267,200 dozen, or a gain of less than 6%, while there was an increase in population of nearly 15%. The reason for the decrease in our butter supply is indicated in the fact that in 1910 we had 20,625,432 dairy cows as compared with 19,671,777 in 1920, an actual decrease of nearly 1,000,000 cows, or 4.6%.

Going back to 1900, we find that the country at that time had 17,135,655 dairy cows, as compared with the 19,671,777 in 1920. In that twenty-year period there was an increase of 14% in the number of cows but during the same period the population had increased 39%.

Under these conditions it is not surprising that we have had to pay very high prices for dairy products and chickens and eggs, for our population is rapidly outgrowing our production of these foodstuffs. The facts as to butter and eggs and chickens are significant of what the nation is facing in many lines of foodstuffs and yet the dairy people and the raisers of chickens have not, by any manner of means, reaped rich harvests from their work, for the cost of the materials which enter into the production of these things, made it difficult to secure even a fair margin of profit at the high prices prevailing.

THE TRUTH ABOUT THE WEST VIRGINIA COAL SITUATION

Standard Printing & Publishing Company, Manufacturing Stationers of Huntington, West Virginia.

Bluefield Office, September 24, 1921.

Editor Manufacturers Record:

I want to compliment you on the article in your issue of Sept. 15 concerning the operations of the United Mine Workers in West Virginia coal fields.

This is the first and only correct statement of the facts as they are known by everyone who has taken the trouble to find out the exact truth and at the same time had no axe to grind. Many others know the truth as stated, but their own motives have stood in the way of their presenting the truth as they found it.

The vicious propaganda of the United Mine Workers has even gone so far as to get into the columns of the Literary Digest and in the past three weeks has caused it to publish two of the most asinine articles I have ever seen in print. They have spent two whole pages in reprinting and discussing the situation, and in the whole lot I am unable to find one single grain of truth, when the exact truth is very easy to get if they really want it.

I am proud to have been one of the number called by the Governor of our State to shoulder a rifle and go to Logan County to suppress an insurrection against the laws and authority of our State, and there are thousands of others of us who are ready and willing to repeat the performance whenever it becomes necessary to protect our State, our property and our own lives from the Bolsheviks masquerading under the name of United Mine Workers of America. It is an absolute impossibility for any honest man to become and remain a member of the U. M. W. of A., much less for a Christian to do so.

The MANUFACTURERS RECORD is the clearest thinking and straightest shooting magazine that comes to my desk, and is the only one that is read from cover to cover. We would like to have you in our company. You would make a good sharpshooter, more of whom we need.

L. J. CUTLER.

Good Effect of the Rise in the Price of Cotton—An Answer to All Deflationists.

A YEAR ago cotton prices were dropping with the speed of ruin. The faster they dropped and the further they dropped the more did Mr. Houston, then Secretary of the Treasury, and Mr. W. P. G. Harding then and now Governor of the Federal Reserve Board, the two autocrats of credit, rejoice and the more adamant they became in their refusals even to listen to the hoarse cry of business for succor—a cry that was almost a death rattle. Mr. Houston had closed the foreign markets by arbitrarily refusing to permit the War Finance Corporation to function. He had declared that sales abroad kept prices up in America and, therefore, sales abroad must not be encouraged. Meantime, the learned institution over which Governor Harding then presided—and now presides—emitted through literary agents its asinine pronunciamentos to the effect that the collapse in prices would encourage production—production which alone, it was said, could save the mortgaged world.

The War Finance Corporation is functioning again, with almost unlimited funds, by national edict. The colossal production which Governor Harding and his associates would bring about by attenuating through starvation the instrumentalities of production is revealed, most spectacularly, in a cotton crop so small that already it is visioned by the spinners of the world as a catastrophe of the first magnitude. They who monstrously—we almost said criminally—deflated the credit of the country, awake to find that their victims, driven to desperation, have looked to the old adage and decided that the best way to fight the devil is with fire. In sheer defense the cotton growers too, thank Providence, have deflated. They have deflated themselves, as it were, into solvency. If the national banking authority could pile up millions in profits by creating an artificial scarcity of money and credit, the cotton grower also, he is discovering, can legislate himself into prosperity by creating a corner in a commodity even more essential to human welfare than gold. His masters plied the whip too hard. Necessity is the master of all teachers and necessity showed the way.

Time only on the tombstones of tomorrow can write in exact figures what the financial insanity of Governor Harding and his associates cost this nation and the world. And not even those grim memorials will adequately recount the suffering that humanity in future years is to endure from the scarcity in all basic products which the Federal Reserve Board compelled the producers of the world to bring about, in the crisis of the world's malnutrition. For when humanity was enhungered as never it was enhungered before and destitute of necessities, the hoarders of gold and the worshippers of usury, under pretence of preserving the solvency of American credit, dipped their pens of authority in the cesspools of hell and wrote their stinking signatures upon usurious tablets, the only effect of which could be and was the enrichment of graspers, the impoverishment of producers and the curtailment of production beyond anything previously conceivable to the mind of man.

The moving months have writ upon the program their inescapable verdict. They wrote in the ballots of last November and in the whirling overturn of the Governor Harding policies. All hope there is of returning prosperity is based on a belief that new concepts rule the Federal Reserve Board, and what dread there is of the future is the dread that springs from lack of confidence in the permanence of present national financial policy so long as Governor Harding continues in office. We had looked to him, in time, to stand forth in his own person, by his own voice, in vindication of everything for which the MANUFACTURERS RECORD has been contending in opposition to him these last two years. We warned him not to do what he did do and we fought him while he did it. And now in the official statement of the Federal Reserve Board, as of October 1, there comes a note of cheerfulness, even of hopefulness; and on what is it based? Why, on the RISE in the price of cotton. They who lambasted prices and whipped them into jelly, now beaten at their own game by the intelligence of the producers and the industry of the boll weevil, admit that the defeat of their program is the thing that is saving the South.

Not in boastfulness do we point out that so we argued and fought all along, but that we may thereby emphasize and impress the fact with a similar record of failure, a similar record of incompetency behind him, a general would have been court-martialed and dismissed, and a sentinel so blundering in the performance of his duties would have been "shot at sunrise." Why, then, is Governor Harding, who has already been drowned in his own errors, a veritable corpse in economic councils, kept alive by the pulmotor of political support? Who keeps him in Washington? He blew the trumpet for the funeral of one great political party, in company with others. He wrecked the business of a nation, and, therefore of the world. The victims of his errors haunt the insane asylums and the prisons and others plead for mercy at the last great Judgment Seat. How much longer, the nation asks, will this man abuse our patience? And it is to President Harding that they look for the answer.

We wonder sometimes if the demons of perversity have not made mad the men who design to solve our problems. Here we have a great Unemployment Conference summoned to meet in Washington, to avert, if possible, what all recognize may be a terrible winter. It does not strike at the root of the problem, which is further relaxation of credit restraint, but tries pussy-footing in the environs. In ostrich fashion, the Conference would bury its head if it could. But, not content with merely sidestepping the truth and declining to tackle the giant of obstruction, which is the Governor Harding element in the Federal Reserve Board, it permits a statement to be scattered from one end of the country to the other, in flaming headlines, to the effect that the Conference's solution of the unemployment situation is for manufacturers and everybody else to squeeze their poverty still further and REDUCE prices! Whether the Conference meant it or not, it has permitted the country to get the idea that prices are to be cut down. A doctor might as well feed his patient strychnine in volume doses. Nobody buys when prices are falling. Nine-tenths of all sensible business endeavor in recent months has been to prove to the public that prices are already at dead low and must go higher instead of lower. Yet just as the public is beginning to realize the truth of this—and it is incontrovertible—this Conference throws a monkey wrench into the machinery by virtually warning everybody in the United States not to buy anything, but to wait until the prices can be driven down!

There is not one pound of anything, not one article, produced in the whole United States that has not added to its share of a tax burden that is ten times that of prewar days; its share of the toll exacted by the railroads, whose pockets have been picked by the Adamson law and union rapacity; by the dead and wounded in France; by the universal debt of charity we are called on to pay to two-thirds of the world; by the cataclysmic economic earthquake which has lifted up the whole commodity plane, high up, and there is no power in the brain of man to force it down again. Granted that some prices are out of line in highness, others are equally out of line in lowness.

In desperation producers are trying to sell products at prices which cannot be continued. They, too, have been lured by the rainbow of cheapness, but there is no pot of gold at the end of it. This mania for uneconomic prices, for low prices at any cost, is an insensate race with ruin, for if the cheapness sought is brought about it spells inevitably but one thing and that thing is REPUDIATION—repudiation not only of the Government debts of the world, but also of the bond and stock indebtedness of the great corporations of the world. If any doubt, let him read the record of disaster as it is already written and try to digest what the market quotations of securities formerly considered standard. The world does not need low prices or high prices, but fair prices. Fair prices mean prosperity: low prices mean now, as they have always meant, destitution and bread lines. They constitute the one conclusive proof of backwardness in nations. If cheapness is what economists want they can find it in India or Serbia, or in the South Sea Islands.

Yes, the South is coming back in spite of former Secretary of the Treasury Houston, whose retirement was worth as much to the country as, say, the Panama Canal, and in spite of Governor Harding. But is the West coming back, and the East, and the whole nation? That great achievement could be witnessed in weeks instead of months or years were some competent man, in whom the people had confidence, a man of constructive ideas and fired with the American genius for progress, in the position Governor Harding now, by courtesy of President Harding, occupies. His retirement would do more good—seriously we say it—than a general reduction of freight rates, and that is saying a whole lot. Moreover, the Administration, the next time it calls an Unemployment Conference, might as well bother to secure as delegates folks with a little "horse sense," instead of just a few of that sort who are condemned to see themselves outvoted by a lot of textbook economists and theorists, most of whom, had they businesses of their own, would wreck them in a fortnight. It is just as well to remember that while there are more consumers in the country than there are producers, the vast majority must be producers before they are consumers. If they do not produce they cannot consume. We have always more than suspected that if given the opportunity to produce at a profit, 99 per cent of all Americans can attend to the spending without the supererogatory assistance of impracticable busybodies.

BEWARE GOLD LOANS!

IF the suggestion from New York of a private gold loan to England in the sum of $500,000,000 was intended to "feel" public opinion, we trust that the response will be so prompt and immediate as to cause abandonment straightway of the proposal.

In the stress of deflation, as credit restriction drove more and more good men to ruin, the Federal Reserve Board tearfully took the position that it simply had to restrict credit because the quantity of gold in the reserve was not capable of supporting the credit structure. The volume of the gold reserve has since become a public scandal. It would support a credit structure of an additional twenty billions without endangering the soundness of American money. Rapidly, day by day, as the facts become known, public sentiment is crystallizing, and not much longer can even the present lower but still indefensibly high rediscount rates be maintained. The only way in which the deflationists can keep in the saddle at all is by impairing the gold reserve. A gold loan to England or to any other country would impair the gold reserve.

Therefore, until and unless the most sacred guarantees are given that a foreign gold loan would not be made the excuse later for credit restriction, a mighty protest against such loans should go up from the public. Nor does it seem to be at all essential that a grant of foreign credit should be in gold. Has not the Administration already most solemnly and emphatically declared that it will approve foreign credit grants only when the money is to be spent within the United States? Quite so. If we are to add to our already incalculable commitments abroad, let it be in terms of American goods.

FIRE WASTE SHOULD BE RESTRICTED

The annual fire loss of the country is more than one fourth of the total valuation of the new construction of the country in each year. Much of this loss is preventable. It can be traced directly to carelessness with lighted matches and cigarette stubs, to defective chimneys and flues, to improperly installed furnaces, boilers and pipes and to other faulty construction; many millions of dollars are lost annually through fires started by open lights. The most effective method, and perhaps the only way to bring about a reduction in these tremendous losses is by a process of public education, by showing how intimately this destruction affects every individual, through possible danger to a child in school, because of property loss suffered personally, the expense incident to the prevention of such loss and because every fire insurance policy would cost less if the fire hazard were not so great. These are the sound reasons which lie behind the widespread celebration throughout the country of Fire Prevention Week from October 1 to October 10.

During 1920, fifteen thousand people lost their lives because of fire and sixty thousand others were injured. The property loss was $500,000,000, a total which exceeds that of any other year with the exception of 1906, when the conflagration occurred at San Francisco. If preventive measures are not taken, this staggering drain upon our resources will continue to increase year by year. But those who have studied the problem have no doubt whatever that the erection of more nearly fireproof buildings, with a stricter attention to the recommendations of engineers and architects, together with an awakened public conscience will gradually reduce this loss.

It is essential that the problem be faced squarely with a full recognition of its seriousness. It is not enough to approach so vital a matter only once each year and on some stated occasion. Every day should in fact be Fire Prevention Day.

LABOR UNIONS AS A VICTIM SEES THEM.

Oklahoma City, Okla., Sept. 22, 1921.

Editor Manufacturers Record:

Replying to yours of the 13th in regard to the Trulock Ice Co., of El Reno. This firm is now out of business entirely and has no address. Long and continued fights by the labor unions have utterly wrecked it and put it out of business, after an existence of over 27 years. However, I hope that you will continue your fight against these miserable unions.—I know what they are from actual personal experience—how low and dirty and vile their methods are, and if they are not crushed for good and all, this country will not be fit for a decent man to live in.

R. S. TRULOCK.

Digest of Fourteenth Census, Showing Agricultural Progress of Country and South's Relation Thereto—Southern States Lead in Crop Value per Acre.

ACCORDING to the preliminary reports of the 1920 census of agricultural activities in the United States, the value of all farm property is given at $77,925,989,073, compared with $40,991,449,090 in 1910, again of $36,934,539,983, or 90 per cent. The South's proportion in 1920 amounted to $21,699,700,000, about 27 per cent of the country's total, as compared with $10,761,800,000, about 26 per cent of the total, in 1910, or an increase in value in ten years of $9,937,900,000, or about 92 per cent.

Number of farms and value of farm property in the United States, 1920 and 1910.

	Jan. 1, 1920.	April 15, 1910.
Number of farms	6 448.366	6 361,502
Land in farms (acres)	955 676,545	878,798,325
Value all farm property	$77,925,989,073	$40,991,449 090
Land alone	54.903 453.925	28.475.674 169
Buildings	11 430,855 671	6 [illegible]
Implements and machinery	3,595,317,021	1,265,149,783
Live stock	7,996,362,496	[illegible]

Increase between 1910 and 1920.

	Increase	Per cent Increase
Number of farms	86 864	8.7
Land in farms (acres)	76,878,220	90.1
All farm property	$36,934.539 983	92.8
Land alone	26.427 779.756	80.7
Buildings	5,105.404 103	184.2
Implements and machinery	2,330.167 238	62.4
Live stock	3,071,188,886	1.4

From the Fourteenth Census it is estimated that the aggregate value of all farm products, including $14,755,358,407, the value of all crops, $7,996,362,496, the value of live stock, and $2,667,738,931, the value of live stock products of farms but not including live stock sold or slaughtered, was $25,419,459,834 compared with the combined value of all farm products in 1909 of $11,334,998,996, an increase for the decade of over $14,034,000,000, or 124 per cent. The South's aggregate value of all farm products, including crop values, $6,095,788,014, live stock values, $2,624,285,460, and live stock products values, $645,242,275, was $9,365,315,749 in 1919 compared with $3,915,079,312, the aggregate value of all farm products in the South in 1909. This was an increase for the South from 1909 value of all farm products to 1919 of $5,450,236,437, or 139 per cent.

As stated in the foregoing, the value of all farm crops in the United States in 1919 was $14,755,358,407 compared with $5,231,850,683 in 1909.

Of the total crop values, the South's portion in 1919 was $6,095,788,014 which is greater by $863,000,000 than the entire crop values of the whole country in 1909.

The acreage of improved land in farms on January 1, 1920, is reported for the entire country at 506,982,301, compared with 478,451,750 acres January 1, 1910. The improved land in farms in the South is estimated at 182,822,371 acres, or 36 per cent of the total improved land in farms in the country; therefore, the South, on 36 per cent of the acreage, produced 41 per cent of the country'c crop values.

The farm crops of the South increased 201 per cent in value in 1919 over the 1909 value with only a 4.7 per cent increase in improved land, against an increase of 16.9 per cent for the rest of the country outside of the South, which had an increase in improved land area of 6.6 per cent.

In this connection it is of interest to compare the approximate values of crops per acre which have been calculated and compiled from preliminary census reports. In 1919, the average approximate value per acre of all crops produced in the South was $33.30, compared with a crop value of $26.70 per acre in the rest of the country, and $29.10, the average value per acre of all crops in the United States.

It is significant that sixteen Southern States, with 182,818,000 acres of improved land in farms, used $224,157,000 worth of commercial fertilizers, or in cultivating 36 per cent of area used 68 per cent of the commercial fertilizer purchased by the entire country.

With a farm value of $70.40 per acre, South Carolina leads in the average value of crops grown to the acre. Director J. N. Harper or the Southern Soil Improvement Committee in a letter to the Manufacturers Record calls attention to the fact that South Carolina expended for fertilizer in 1919 $52,546,795, so that for each acre of improved land in farms an average of $8.46 was spent. North Carolina, her nearest competitor in the South, with over 2,000,000 acres more of improved land, spent $5.96 per acre for fertilizers and has a farm value of crops per acre of $61.40. **Georgia, with a crop value per acre of $41.40**, spent $3.53 per acre for fertilizers, and Alabama, with an acreage crop value of $30.70, spent about $1.42 per acre for fertilizers. The value of Alabama's farm crops dropped below half of the value secured on South Carolina farms. North Carolina spent about $6.00 per acre for fertilizers and doubled the value per acre of Alabama's crops. Putting this in another way, North Carolina, states Mr. Harper, spent a little over four times as much for fertilizers as Alabama and made 100 per cent on the investment.

Of course there are many things to consider in the kinds of crops raised, weather, boll weevil, and other conditions, but according to Mr. Harper it seems that as is the use of fertilizer so is crop production. He points out that a less number of acres intelligently farmed and liberally fertilized can be made to pay more profit than by trying to farm large areas and securing low acreage yields. With the changing system of farming that is gradually coming over the South, he believes it becomes more imperative than ever that the acreage be reduced.

This is especially true of cotton. Under boll weevil conditions, farmers cannot hope to farm large areas in cotton profitably. This has been brought forcible to their attention this year, when the boll weevil has reduced the yields in some sections to where the farmers will scarcely make a bale on from six to ten acres of land. This is a conservative estimate, given by some leading farmers in the districts seriously affected. It would seem that fewer acres of cotton, liberally fertilized and carefully tended; the growing of all feed and food crops, and plenty of hay and roughage for the cattle and hogs; the keeping of sufficient cows to furnish all the milk and butter needed, and a home poultry flock, and an orchard and garden will work for the complete financial independence of the Southern farmer.

Figures show that the crops must be fertilized to give the highest yields per acre and greatest profit, and when there is a good income from every acre of farm lands planted in the South then we shall have reached that condition where we can boast of our efficiency.

The following table is compiled from preliminary reports of the 1920 agricultural census with comparison of improved land in farms, value of farm crops, and farm expenditures for fertilizers in 1919 and 1909, and the calculated approximate value of all crops per acre, by the States, in 1919.

State:	Improved Land in Farms (acres) Jan. 1, 1920	1910	Value of Farm Crops of 1919	1909	Farm Expenditures for Fertilizer 1919	1909	Approximate Value of crops per acre 1919
Alabama	9,893,407	9,693,581	$304,348,638	$137,540,733	$14,066,108	$7,630,952	$30.70
Arkansas	9,238,893	8,076 254	341,565,356	112,129,230	2,572,678	596 553	36.90
District of Columbia	4,258	5,133	307 614	242,582	23,267	16,975	72.20
Florida	2,297,271	1,805,408	80,256,806	33,217,656	16,316,929	3,609,853	31.90
Georgia	13,054,010	12,238,017	540,613,626	216,971,974	46,196,434	16,860,149	41.40
Kentucky	13,975,746	14,354,471	348,654,924	130,594,808	3,597,449	1,350,720	24.90
Louisiana	5,626,226	5,276,016	206,182,548	73,536,538	3,840,469	2,064,919	36.60
Maryland	3,136,728	3,354,767	109,811,164	40,330,688	7,610,478	3,387,634	35.00
Mississippi	9,325,677	9,008,310	336,207,156	140,531,671	4,288,165	2,703,271	36.00
Missouri	24,832,966	24,581,186	559,047,854	211,061,359	3,941,488	671,073	22.50
North Carolina	8,198,409	8,813,056	503,223,313	131,071,959	48,796,634	12,262,533	61.40
Oklahoma	18,488,105	17,551,337	549,249,277	131,522,220	891,288	29,092	29.70
South Carolina	6 206,644	6,097,999	437,121,837	137,379,131	52,546,795	15,162,017	70.40
Tennessee	11,185,302	10,890,484	318,285,307	111,133 210	3,525,133	1,216,296	28.40
Texas	32 377,929	27,360,666	1,071,526,923	287,455,020	2,6 2,947	595,363	33.00
Virginia	5,460,492	9,870,058	292,842,212	89,775,045	17,564,769	6,932,455	30.90
West Virginia	5 520,308	5,521,757	96,537,459	36,167,014	1,709,546	528,937	17.40
Total Southern States	182,822,371	174,558,500	$6,095,788,014	$2,020,690,838	$224,180,637	$75,558,692	$33.30
Maine	1,977,329	2,360,657	$100,152,324	$33 386,440	$7,759,067	$4,069,479	$50.60
New Hampshire	702,902	929,185	23,509 665	12,112,260	526,180	512,580	33.40
Vermont	1,691,595	1,633,965	47,999,600	23,697,700	857,273	570,752	28.30
Massachusetts	908,834	1,164,501	53,700,925	26,191,705	3,906,733	1,965,682	59.00
Rhode Island	132,855	178,344	5,340,378	2,986,816	379,786	335,163	40.10
Connecticut	701,086	988,252	44,492,385	19,279,953	4,893,658	1,954,163	63.40
New York	13,158,781	14,844,039	417,046,864	190,002,693	15,067 371	7,142,265	31.70
New Jersey	1,555,607	1,803,336	87,464 445	35,648,849	10,742,682	4,277,604	56.20
Pennsylvania	11,850,696	12,673,519	410,933,877	153,472,094	15,761 308	6,861,605	34.60
Delaware	653,052	713,538	23,058,906	8,650 192	1,222,329	864,577	35.30
Ohio	18 542,353	19,227,969	607,037,562	221,086,342	13,206 018	4,180,485	32.70
Indiana	16 680,212	16,931,252	497,229 719	196,869,691	8,734,698	2,189,695	29.80
Illinois	27,294,517	28,048,323	864,737,833	364,190,261	3,171 625	615,594	31.60
Michigan	12,926,241	12,832,078	404,014,810	152,102,869	4,887,253	945,354	31.20
Wisconsin	12 452 216	11,907,606	445,347 868	137,830,966	779,750	127,753	35.70
Minnesota	21 481,710	19,643,533	506,020,233	186,705,665	432,680	74,653	23.50
Iowa	28,606,951	29,491,199	890,391,299	309,376,240	596,537	109,570	31.10
North Dakota	24,563,178	20,455,092	301,782,935	180,311,555	119,782	10,003	12.20
South Dakota	19,051,922	15,827,208	311,006 809	125,116,080	198,186	11,294	16.30
Nebraska	24 587,786	24,382,577	519,729,771	194,401,937	699,985	31,021	21.10
Kansas	29 600,760	29,904,067	588,923 248	212,218,933	979,037	75,602	19.20
Montana	11,907,278	3 646,309	69,975,185	28,886,689	126,232	12 323	6.30
Idaho	4 511,680	2,778,740	126,492 411	32,880,915	106,121	20,737	28.00
Wyoming	2 113 951	1,256,160	30,270,630	9,903,071	89,149	5,302	14.30
Colorado	7,744,757	4,302,101	181,065 239	50,110,677	294,448	61,113	23.40
New Mexico	1,717,224	1,467,191	40 619,634	8,619,802	113,483	25 371	23.60
Arizona	712,803	350,173	42,481,230	5,434 664	40,872	6,080	59.50
Utah	1,715,380	1,368,211	58,067,067	18,204,379	108,956	20 037	33.80
Nevada	594,741	752,117	13,980,303	5,878,425	9,897	8,379	23.50
Washington	7,129,343	6,373,311	227,212,008	74,101,381	525,637	87 023	31.80
Oregon	4,913,851	4,274,803	131,884 639	45,064,450	489,524	68,557	26.80
California	11,878,339	11,389,894	587,600,591	146,526,151	8,182,998	2,143,993	49.40
Total Rest of Country	324,159,930	303,893,250	$8,659,570,393	$3,211,249,845	$105,009,275	$39,323,849	$26.70
Total United States	506,982,301	478,451,750	$14,755,358,407	$5,231,850,683	$329,189,912	$114,882,541	$29.10

It is understood of course that not all of the enormous increase in farm values has resulted from increased production, for there are some commodities which show an alarming falling off in production compared with the former census figures. Take the production of butter, for instance, which is reported by the 1920 census at 707,666,492 pounds, 286,984,118 pounds, or 28 per cent, less than the 994,650,610 pounds produced in 1909, while the population of the country during the same period increased 14.8 per cent.

In 1919 the South produced 371,586,922 pounds of butter, which is 56,654,284 pounds or 13 per cent less than the 1909 production, compared with the decrease of 230,329,834 pounds or 40 per cent in the rest of the country outside of the South. Thus while the South showed a decrease in butter productions, the decline was not so bad as in other sections.

With a population increase of 14.8 per cent the number of chickens raised increased only 2.9 per cent and chicken eggs produced increased but 5.2 per cent in the United States.

In 1920, of the 6,448,366 farms of the nation, 3,925,095 were operated by owners, 68,525 by hired managers, and 2,454,746 by tenants. It is estimated that 3,459,527 farms, or 53 per cent of the number of the country's total are in the South. Sixty-seven per cent of Southern farms, however, are operated by tenants, though it is found that 45 per cent of the farms operated by owners are in the South and but 34 per cent of the farms reporting mortgages are in the South.

W. B. Estes, Secretary of the Board of City Development of Amarillo, Texas, in writing to the MANUFACTURERS RECORD on the agricultural progress of the South states:

"One of the major problems that confronts the South at this time is the making of the farm home a desirable place in which to live rather than a den of drudgery to the housewife and children. This can be done at a nominal expense by the installation of running water, bath, lighting plant and, when financially possible, electric washing machines and other electrical apparatus that reduce the burden of toil; the telephone, phonograph and motor vehicles. The statistics showed that only 30.7 per cent of the farms of the United States had automobiles. Texas is the only Southern State included in the list of the highest ten States. Of motor trucks there were on an average of two farms out of every 100 so equipped. None of the Southern States were included in the first ten. There were 106 tractors for every 1,000 farms, and not a single Southern State included among the leaders. Only 38 per cent of all the farms had telephones. Only 10 per cent of the farms had water piped into the house. New England States and California lead in this respect. Only 7 per cent of all the farms had eliminated the old oil lamps for gas or electricity.

"From the foregoing it is obvious that it would be to the interest of the manufacturers of the country to put on an educational campaign throughout the South that would result in the bringing about of these modern-day conveniences, and when that task will have been accomplished the operation of farms of the South and elsewhere by tenants will have been considerably reduced."

The World's Most Startling Cotton Situation.

MR. EUGENE LEVERING, chairman of the Board of Directors of the Merchants National Bank, the largest bank in Baltimore, in discussing the business situation in an interview with the Baltimore Sun said:

"In the South tremendous benefit has been derived from the recent advance in the price of cotton, and while the product has not been moving so freely there has been sufficient selling to enable the farmers to meet their indebtedness at the banks, and the financial institutions have, in turn, been in a position to release funds for other purposes. Nor has this benefit stopped with the South; its effect has extended to other parts of the country and relieved credit conditions, which relief has been reflected in the reduction of outstanding loans."

This is in direct harmony with what the MANUFACTURERS RECORD has constantly proclaimed, and we are glad to see so strong a commendation of the advance in the price of cotton from so conservative and outstanding a banker as Mr. Levering.

The definite effort put forth by Secretary Houston and the Federal Reserve Board to break the price of cotton and of other farm products, which they accomplished to such an extent that Governor Harding admitted that he could not stop the decline when he thought he could do it, very nearly bankrupted the entire country. Indeed, Mr. Moreton Frewen of England, in a recent letter to the MANUFACTURERS RECORD, said that this "deflation very nearly bankrupted the universe," for the financial world followed the lead of American deflation; and the deflation of the Federal Reserve Board was a definite attempt to break down business, under the impression that that was the way to cure a fever of activity.

It is not generally regarded as a safe proposition by intelligent physicians to break a high fever by some drastic and powerful remedy which if at all successful would leave the patient too weak to survive. But the Federal Reserve Board thought that the way to break the fever of speculation was by that system, and in doing so it very nearly caused a complete collapse of the business of the whole world.

The advance in cotton is proving an untold blessing to the South, and as Mr. Levering very correctly says, it is helping the rest of the country. An advance in wheat and corn and livestock and in manufactured products would prove equally as helpful in lifting the burden of unemployment, in stimulating business activities, and in starting the world on the road to prosperity again. There never has been, and never will be, prosperity under steadily declining prices and lack of employment.

And so every business man in the country may well rejoice that the higher price of cotton is helping to save the situation by adding up to the present time about $750,000,000 to the value of this year's crop and of that brought over from last year. About $500,000,000 of this amount will be in the South, perchance much more before the advance stops; because, disguise it as the cotton bears may try to do, the world is facing a cotton famine such as it has not faced since 1865, and the situation now is far more alarming for the world's cotton supply than it then was.

We now have the boll weevil with us, and no remedy has yet been found for the boll weevil. But in every town in the cotton growing regions of the South there should be raised a monument to the boll weevil, for the boll weevil is forcing the South to turn to diversified agriculture more rapidly than all the preaching and all the teaching of all the papers and all the agricultural leaders of the South could ever have accomplished. With diversified agriculture steadily expanding, Southern farmers can make more money on that basis than they will in the future be able to make with cotton at 25c or 30c a pound. The boll weevil is not a blessing in disguise; it is a blessing so easily seen by every thoughtful man that its importance to the South cannot well be over stated. But the world will suffer.

The world needs cotton, and it will need it in an ever-increasing quantity. It will need it to a far greater extent than under the boll weevil it will be possible for the South to supply, even if cotton sold at twice the present price. The world needs cotton one hundred times more than the South needs cotton.

For many years we have said that cotton has been one of the greatest economic curses ever fastened around the neck of the South. If the South had never raised a bale of cotton it would be indefinitely richer than it is today. The world may suffer for the lack of cotton, but the South will grow steadily richer under diversified agriculture. And with this increased wealth there will come a broader vision of the South, a wider realization of the vast possibilities of this section, no longer dependent upon one industry. And when the South by diversified agriculture has proved that it can lead every part of the United States in profitable diversified farming, it will have created a foundation for faith in its future greater than the world has ever had in the past.

The cotton boll weevil will be fought. Perchance in years to come a remedy for it will be found. But in the meantime the South should concentrate its greatest agricultural work upon diversified crops and upon the raising of live stock. For years the world has sought a decent price for cotton. Every man who during the last fifty years has tried to hold down the price of cotton has to the extent of his ability chained the tenant farmers of the South to an economic slavery far worse than the black slavery of olden days, and to the extent of his ability he has kept the children of these tenant farmers in illiteracy and in desperate poverty.

If out of the present situation the world can be made to realize that the cotton bear gamblers, who seek to hold the price of cotton down (and there are thousands of this kind in the South itself), are a curse to every ligitimate cotton industry, good will come and the boll weevil's work will, to the South, forever prove a great blessing.

It is not possible to exaggerate the seriousness of this cotton situation. The report of the Government only serves to intensify the reality of the matter and to make certain the fact that for the cotton in stock and the crop that has been raised the South is entitled to a far higher price than it is now getting for its cotton. Viewed in the light of the world's consumptive requirements, even under adverse business conditions, and in the light of the certainty of a small crop for some years to come, double the present price would not measure the intrinsic value of the cotton now in existence. It is useless to say that the world will not consume the crop at such a price, for the world can take it and use every bale of it, for we will go into next year's crop with a world swept more thoroughly clean of cotton than it has been in the last sixty years. It is a desperately serious world situation which the world faces as to its cotton needs. By virtue of that fact that for fifty years the South has sold cotton to the world at less than one-half of its intrinsic value and in doing so has thus contributed as a free gift at least thirty billion dollars to the prosperity of the world and to its own poverty, the South commercially, financially and ethically is now entitled to reap out of the present crop and the next few crops that are to come, a price which will yield some fair return to the cotton growers of this section.

It has been well said that upon the cotton crops of the South depends the maintenance of civilization itself, for without cotton clothes and cotton goods, the world would sink back into barbarism, unless some substitute could be found, and the world's ingenuity has never yet provided any.

Congress is Pussy-Footing With Tax Revision.

THE country is amazed and astounded at the incompetency or lethargy of the gentlemen who are responsible for the revision of the reveuue bill. They have abdicated their functions in favor of the very academicians and experts who produced three years ago that abortive measure under which American business ever since has struggled to function. In all solemnity we say to the Republican party leaders that to follow these experts is to plunge over the precipice of complete disaster. They are the creatures of formulas, the blind servants of pedantry. Years ago they constructed, in theory, a tax system and to it they are wedded. The record of failure cannot move them. The intricacies they have evolved are the intricacies they intend to perpetuate, if they can, and a seven million majority at the polls last November has taught Republicans nothing except to turn for leadership to the very gentlemen who, in guiding Democratic tax legislation, made that seven million adverse majority not only probable but even inevitable.

Although, under the Constitution, a revenue bill must originate in the House, the country acquiesced in the ridiculous performance which the Ways and Means Committee staged of preparing a tax measure in a couple of weeks. No one was such an idiot as to suppose that a real revision had been formulated in that time. There was a tinkering with the old bill, an attempt to bolster it up. That was all. So the country sat back and believed the reports which came from members of the Senate Finance Committee to the effect that it would rewrite the bill, sensibly rewrite it, and give to the country the sort of revenue measure for which it had voted and which it expected. But the Finance Committee is presided over by a man who is physically unable to endure the burden of the work. It is a sad commentary of boasted American efficiency that after struggling along for a year and a half under the executive leadership of a man so sick that his application to the tasks in hand was utterly impossible, the solution of one of the nation's gravest problems should be confided now, in so large a degree, to another gentleman who is likewise incapacitated. It may be that in mere despair he turned to the very experts from whose experimentations the nation was so anxious to rid itself, but in all charity it must be said that the complex interests of the nation are too vast to permit the feelings of a single individual to outweigh the necessities of millions. If the Chairmanship of the Committee on Finance weighed too heavily on Senator Penrose, that gentleman should have been relieved of his duties long ago.

To call the pending measure a tax revision bill is to trifle with honesty and be an accessory to political chicanery. It is not a revision measure at all. At best, it represents nothing more than an amendment of the existing law. It does not change in any respect the principles under which the existing law was written. It accepts them all, in toto, and seeks to perpetuate in time of peace the ruinous practices which were accepted by citizens only as a patriotic duty, in a period of extreme stresses.

There is not in the bill a single vital change that is constructive. Resort is had to exactly the same methods and the same reservoirs as formerly. In spite of the most solemn campaign declarations, even the destructive excess profits taxes are not repealed as of January 1, 1921. The arrangement of surtax rates involves monstrous iniquities. To illustrate, the man with an income of $16,000 will have his surtax decreased by $110, whereas a man with an income of $34,000 will pay but $10 less than he does now and the man with an income of $90,000 will save $1,330.

We are not prepared to say that the proposal of Senator Smoot, in its present form, constitutes an ideal system or could be accepted without considerable change, but it must be obvious to every intelligent citizen that Senator Smoot, almost alone, has seen the problem clearly and sought to attack it sensibly. He is for cutting the Gordian knot of the experts, sweeping away their intricate webs of confusion, and adopting in their place a simple, plain, understandable tax system, so that any man can tell what his taxes are and not be kept on the anxious bench for years while the same experts that wrote the bill advise and confer with one another as to what their law means, the meantime receiving huge fees for their services. He visions that the world has passed into a new era, an era of gigantic financing, when the littleness of ancient days must be abandoned. It is a big problem to be attacked in a big way. There is no hope, we think he understands, in a disjointed and uncoordinated revenue system which becomes utterly worthless if the Treasury's forecast of events happens to be faulty. The kind of tax bill Mr. Penrose is about to foist on the country simply means an endless series of revisions. It means piling failure on failure, the country turning at regular periods from one party to the other in the hope that statesmanship will be found somehow, somewhere, capable of breaking loose from the past and turning to the future with the kind of tax system which harmonizes with modern endeavor.

A sensible sales tax is the fairest, squarest, easiest tax yet devised. If the revenues fluctuate above or below the line of needed receipts, no revision of the whole law is essential—merely a change in the rate. Certainty instead of uncertainty is read into the tax situation and simplicity takes the place of intricacy. It is a tax that automatically adjusts itself to what the business of the country can stand. It plays no favorites. And automatically, too, he who is able to buy most pays most, which is fair enough. It is a truly scientific tax system, in contrast to the massing of the antiquities of taxation into what the so-called experts are pleased to call a scientific system.

It is a vain thing to hope that there will be any material aid to business through the enactment of the Penrose measure. As well expect to paint a discredited motor car and thereby restore its running efficiency. Our complaint is against the whole method under which revision has been attempted, against the persistence in clinging to discredited ways and means. It is useless, in such circumstances, to recount the objectionable details. The whole thing smells bad.

Already innumerable complaints from business men who have studied the bill are being made. We do not doubt that the Administration has been deluged with protests. There is a sullen discontent beginning to rise over the country and it is directed against the nonsensical way in which Congress is attempting to solve the revenue situation, among others. And bad revision, let us say, of a revenue measure is about the surest form of political suicide known.

We believe that a caucus of Republican Senators, with the least encouragement from the White House, would vote to ditch the entire tax program of Senator Penrose and instruct the Committee to go back to work and bring a modern tax measure which really would revise the tax system. Meantime, as the country gets more and more nauseated, the distinguished Chairman of the Finance Committee solemnly announces that it might be possible to remove the taxes on transportation as of January 1 next provided first class postage rates were increased fifty per cent! The Republican party is trying to carry too much dead weight. It was elected to be constructive, and it will be constructive or it will be repudiated.

Rev. Dr. Newell Dwight Hillis on "Labor's Hatred of Labor"

[We have recently come upon a remarkable sermon preached in 1902 by Rev. Dr. Newell Dwight Hillis in Plymouth Church, Brooklyn, of which he was then as now the pastor, and published by the Brooklyn Daily Eagle by which it was at that time copyrighted, in which Dr. Hillis under the heading "Labor's Hatred of Labor" pointed out with wonderful clearness the sin committed by the country in not giving adequate protection to non-union or free labor men. He scored the crimes committed by union labor against non-union men and appealed to their sense of justice and righteousness that they may save themselves from the criminality which has followed the work of those who have sought to mistreat and assault and often murder the non-union or free men.

Dr. Hillis in the opening of his sermon said: "The pulpit has no right to speak save on the moral aspect of industrial problems in their relation to righteousness and character. The Ten Commandments are fundamental." And with that thought in mind he discussed the relation of capital and labor, union and non-union to each other. From that superb sermon in defense of the right of free men and of liberty and in an appeal for the recognition of the Divine command of the law of God against murder and crime, we can only take a few extracts without undertaking to publish the sermon in full—Editor Manufacturers Record.]

By Rev. Newell Dwight Hillis, D. D.

Having made many addresses in the interest of the colored people in the South and the red and yellow in the West and the orphans in the cities, and having made more than one score of addresses for union labor, I am going to make a plea for the non-union man's right to be a non-union man, since he has fully decided that that is the best way for him to make the most possible of himself.

Now it stirs wonder that it is necessary to justify the non-union man's right to refuse to join a union. Men differ on everything else, why may they not have the right to differ as to organized labor? Some men join the church, others think they can do better outside it. Have churchmen a right to organize a crusade against those outside the church? To maltreat them, and club them to death? Kicking them until they are kind and Christian? Some boys go to school and become scholars. Some boys play truant and will not study. What if the boys in the Polytechnic went around waylaying the truant boys, even though they are mistaken in their truancy, to pound in the skulls of some, and to threaten every merchant who sold the truant boy shoes or candy or hats? There are clergymen in New York who have a much larger salary than I have, and these New York clergymen do not belong to my association. What if I instituted a boycott against these preachers? Threatening them, if they did not stop working at later hours at night than I did, or writing articles in outside hours, and if the minister persisted, what if I should wait at his study door and pound in his skull with a piece of lead pipe wrapped in brown paper, as the walking delegate of my ministerial association just as that Scotch contractor was killed at high noon in Chicago, within a few minutes of the City Hall. And what if I organized my association to threaten the prosecuting attorney and the mayor and the politicians with the votes of all the churches, to secure my acquittal of murder, as that contractor's murderer was acquitted by a non-agreement of the jury.

The union man has a right to decide how many hours he will work and at what wage he will work.

The non-union man has a right to deliberately consider the reasons for the union, and also to refuse to join it, in his own happiness and welfare.

No union man has received any charter from God or the Constitution to kill a non-union man, or to send around these printed notices saying the following factory and the following store and the following shop are declared unfair! and "you are directed to boycott any merchant who handles their goods:" orders that have bankrupted scores of little shops and factories and stores, notices that have broken the hearts and ruined the lives of innumerable poor men, men who may have been mistaken in not joining the union, but who have the same God-given right to do foolish things that you and I have, without being starved to death by being posted as unfair, or pounded to death.

For every twenty union men and their families there are eighty non-union men with their families. These laboring men may hate capitalists, but labor's hatred of labor burns like a flame, eats like nitric acid, is malignant beyond all description. But the other day a woman, representing a certain union, visited many of the families in Plymouth Church asking them to boycott a certain institution, and saying, "If you will boycott these non-union goods in this line, we will boycott all non-union goods in your line." It never seemed to occur to this woman that she was pulling down other poor women's houses and lives and climbing up upon their bodies. At first I was so innocent as to suppose that this woman had come to tell how labor loved labor, how a union woman loved non-union women. I supposed she was going to say, "We do not pay our grocer enough; let us pay him 10 per cent more for sugar. We do not pay the man who sells us kindling enough; I am going to pay him 10 per cent more for wood." I expected her to say: "The carpenters' union feels that the plumbers ought to have a higher wage, and that the plasterers ought to have a higher wage, and the carpenters' union have decided to shorten the hours and increase the wage of the plasterers." **But, alas! this woman's hatred for non-union women burned in her like the fires of hell.** She was pitilessly, relentlessly and tirelessly pursuing the non-union women, and men, to destroy the market for their goods, to ruin their factory, and to starve them out; and that woman named "The Vengeance" in the French Revolution was not a better hater. Thank God, only a little section of the labor unions feel in this way; the great majority disclaim violence; but just here we remember that Guizot tells us that **only 1 or 2 per cent of the people of France believed in violence; the 98 per cent were disclaiming violence; they allowed the 2 per cent to fill the streets of Paris with festering corpses, to clog the Seine with dead bodies, to shut up every factory in Paris until the laboring classes starved by scores of thousands.** And the 1 per cent element in the labor union, that hates non-union men, that sends out letters declaring non-union factories unfair, the element that makes the union effective by the boycott, are now daily using the United States mails to boycott little shops and factories all over the country and if permitted they will get this country into immeasurable ruin.

Just there let me say I am not speaking as a theorist, but only giving the results of long experience, patient study and sifted facts. In my own experience I first knew a sympathetic strike of carpenters in my village, where the carpenters did not wish to strike, where the walking delegate came to order the strike, where the walking delegate sent the men to the other building that they might not witness the event, while he pounded into insensibility and injured for life a boy who, perhaps in his misguided courage and ignorance, was toiling for his wife and newly born babe. Within five miles from

that house, two years later, a beautiful home was nearly completed. When a strike was ordered and months had passed, the owner put in a non-union man to polish the floors. The union men gouged the house with chisels, ruining every door, every panel, every stair step, every mantel, representing a loss of several thousand dollars. When the contractor was believed to be running down the criminals with detectives he was attacked at night on his way home from church by three of his own men, who wore masks but were afterward discovered. Recently, when a musician died, leaving his widow and children, his wife secured the position. But the Musicians' Union put on a brave front and dared the enemy in his den. With true chivalry these heroes of toil and of down-trodden labor waited on the widow's employer, threatened a strike and boycott and finally compelled her discharge and replacement by one of their own members.

You all know the story of the last two years in Chicago. The story of the gouging of houses, the murder of non-union men, the riots in the streets, in such a story of bloodshed and suffering as has scarce ever been known. And every month is now culminating some of the events of the building strike. One non-union carpenter was especially objectionable. After the long strike was over, the union delegate followed this non-union carpenter and forbade the builders hiring him under penalty of strike. Then he got a job on the street, but the delegate threatened the alderman, and again he was without work. For a year his clothes grew more ragged, his face more gaunt, his family sank lower and lower. An old employer, representing a union shop, from time to time secretly gave him something to live on. At last, hounded to death, one night crazed with want, he assembled his children, killed them all in turn, cut his wife's throat and killed himself.

Oh, the bitterness with which labor pursues, not wicked capital, but poor and helpless labor!

And, strangely enough, everybody is terrorized.

Some pulpits have fixed their eyes so intently on the wrongs of the twenty union men that they have no kind word for the eighty non-union families. The politicians will not speak; most papers will not speak. Tomorrow this statement will be picked to pieces by some editors who want to square themselves with the union instead of keeping square with the laws of Almighty God and their country. Meanwhile, there is one word that stands: "Thou shalt not kill." There is another word that stands: "All ye are brethren." There is another word that stands: "Love your enemies."

Having spoken often for unions, in making this plea for the ending of violence, to the end that the unions may increase not only in number but in strength and influence, one thing should be said in explanation of violence. The union man says: These events are exceptional. Violence is only an occasion. There are bad men in the ministry and bad men in churches as well as labor unions. Sometimes we call men scabs and ostracize them socially and threaten them physically, from necessity. We boycott the goods of non-union men to raise our standard of living. Occasionally we kill men, but it is better that one man should die rather than that all should perish. Today's violence and riot look toward tomorrow's betterment. We are parents, disciplining the children, called non-union men, and from this point we ought to be judged. This I believe to be the argument of the union man, stated not simply with scrupulous fairness, but with fullness and sympathy. But analyze this statement. A parent can chastise his own child, but under the laws of the republic he cannot kill the child or starve the child to death. It is said that we break the lower law through violence that we may gain a higher end, namely, a better standard of wages. But are these ends named food and clothes and wage the highest end? Are better food and clothes worth while if gained through the destruction of another's life and liberty? In this twentieth century is there any force so powerful as moral force? Any influence so omnipotent as public opinion? What if union men did so much better work than non-union men, would not the sympathy of public opinion support union men as clubs never can? If the corporate capital named the miner could honestly say in the sight of men and God, "there is not one dollar of watered stock in these mines or in our railway stock; the dividend is paid on the absolute cost." they would have the sympathy of all the public, and if the union men would say, "we do honest work, we ask an honest wage, we want our share of the products of our labor and we appeal to the sense of justice and fair play in our fellows; we will not kill or permit killing; we forswear the club and the firebrand and the boycott. We stand on the Constitution and appeal to the laws of the land." From that hour all non-union men will become union men as well as patriots and citizens. Then public opinion would make labor invincible; then non-union men would become convinced and be union men. But **so long as union men say. "The boycott, with its cruelty to non-union brethren, is a necessity, violence is occasional, so long as they excuse it, instead of publicly and forever committing themselves against it, that long will society remain the prey of men who first make work dear and then make it scarce so that non-union man may starve. But every deed of violence will have its just recompense. Nature and God are against crime. There is a power that makes for righteousness.** The next step in the present movement is for the railway men to strike with violence to compel the executives to pull their chesnuts out of the fire, and so on to all the trades indefinitely. What the end of that series is to be no man knows.

What is to be done to double the wage? The way to increase our wage is to increase the quantity and especially the quality of our work. Men are putting their hands into the tool—they must become expert workmen and put the intellect into the tool. We must save our waste. We have wasted one-half our forests; the new methods of farming show us that we can double the income from the soil; of a list of one hundred millionaires recently made, over eighty of them made their fortune by saving what thirty years ago went to the waste heap.

Twenty years ago a poor foreigner landed in New York and began his work. He set one ambition before himself—to educate everyone of his children. He determined to lose his life to save his children; he forsook the saloon, the hall where his fellow-workmen congregated; he rose up early and sat up late; to keep his children studying he kept them in the common school and the high school; not content with one Sunday School and church he sent them to two Sunday Schools and every church service. His sons climbed to positions of influence and wealth; everyone of his daughters became teachers in the city schools. One day this foreigner and his wife disappeared from their little house in the tenement region and went to live on an avenue with a son who had been admitted to the bar. This man used his strongest child as a means upon which to climb upward. The family has passed within twenty years from the bottom round, industrially, to the top round. He solved the labor problem by the school house and the church and he solved it in twenty years. Suppose he had listened to that labor leader who told his men at the beginning of the strike to "go and buy a gun;" suppose he had spent all his Sunday afternoons, as some of our laboring people are spending theirs, in the saloon, and the beer garden, in idle discussion of their wrongs. It would have taken half a dozen generations to have materially changed the condition of that family. The republic offers a royal road to success to every working man. And, though he be a fool he need not err therein in walking the highway lined with free schools, free churches, free lecture halls,

social settlements. The need of the hour is to keep the children in school instead of taking them out at thirteen to put them in the shop or store.

Above all else, good character increases the wage. Machines are rapidly doing away with skilled labor, so that a common workman in a month can master almost any machine. Honesty is becoming a great commodity. Witness the wholesale merchant recently who offered $15,000 a year for a man who had intelligence and experience to take his desk, but said that he would double it to find also a Christian man whom he could trust and so go abroad for a year. He could find men bright enough, but the broken down merchant could not sleep until he found a man good enough to guard his interests. Witness also the collapse of the little factory in western New York. Three times in two years, under the innuence of a labor agitator, the men went off and left the hot iron in the blast to chill. Now the foundry is deserted, the workmen's homes are empty, and, as the union would not incorporate and no one is responsible, the whole plant was wrecked.

..itness the statement of the great ship-builder on the Clyde. A year ago he put in a new plant the crane for lifting the hot steel, with all the tools patterned on our Pittsburgh mills. ..ithin two weeks the labor union limited his output of steel with the American tools to the output per one hundred men in the old English plants, where thirty men wth long ropes pull the caldron of hot steel from one end of the shop to another. "It is of no use," said the manufacturer, "I have lost a hundred thousand dollar plant and the interest on it. The men make work dear, and that makes it scarce, driving it to America. Then they want a high wage, having first of all refused to do the work that produces the wage. As an English manufacturer," he added, "I am a Samson, bound hand and foot, and delivered over to the United States Steel Co. to be shorn. My only hope is that the unions will soon limit the output in the States and then we will recover our position."

But that manufacturer had forgotten one thing. During the last .ew years hundreds of thousands of spindles have been set up in Japan and China. Factories are beginning to go where factories are .afe. ..ut we need not go so far away for illustrations of the moral quality of work. A certain union limits the output of its men very severely. Sometime ago in my own house two of these men finished the limit of their work at half past eleven. The head man returned at half past one and smoked a clay pipe till half past three. Then the second man returned and smoked his pipe until five. Neither man did a stroke of work from half past eleven until five, because the union forbade him. Both men were humiliated; one was bitter. He felt that he was a beggar and rebelled against taking a wage that he felt he had not earned. I believe that man loved his work, wanted to come early, wanted to stay late, and to skimp or slight it hurt him like a blow, and in all that smouldering rebellion lies the nation's hope. Alas for these political confidence men and labor agitators, who are teaching their workmen to give the least possible work to get the most possible wage!

A year or two ago, I saw a chair from a great department store that fell to pieces the third time that its owner used it at the table, dropping apart like Holmes' "Wonderful One-Hoss Shay." Nature made the mahogany to be beautiful in color, his tools were good, his screws were good, his glue was good. But every joint was a lie. Every drop of glue was a lie, every nail he drove was a lie; he had skimped his work to punish some unknown purchaser, and the workman's hatred of his work and his employer were incarnated in the chair. Booker Washington once said, "I will not allow myself to be degraded so low as to hate my master because he made me a slave." And no matter what injustice the workman suffers, he ought not to permit himself to be degraded to the point where he makes his work to represent his hate and "wears sheeted lies" like clothes around his body. We need a revival of ethics. We do not need more gold, nor more land, nor more tools, but this country does need to commit the Ten Commandments to memory.

The time has fully come for every patriot to put himself on record against labor's hatred of labor and the union man's boycott of the products of non-union men, that is destroying our little shops and factories all over the country, ruining the lives and breaking the hearts of innumerable poor people who have no voice, no newspaper organs, no friends to lift the shield above them, no defender. The man who keeps silent must some day meet that Judge who said: "Inasmuch as ye have not done it unto the least of these my little ones, ye have not done it unto me."

Oh, that men would have the courage of their convictions! Oh, that these labor leaders, who every week are posting in their unions some little shop, some little store, as unfair, to evade the law of boycott, would remember that if they sowed the wind the nation will reap the whirlwind; if they sow the spark the nation will be overtaken by the conflagration; that if they do injustice by destroying the chance of work for non-union men, these non-union patriots will become anarchists, and bring destruction upon all alike. If you love your fellows, speak out for the poor and weak. Be the good Samaritan that binds up the wounds of the oppressed poor, and lifts the shield for his defense. Be your church Catholic or Protestant, cease all discussions on metaphysics, and for a year stand for the essentials, the Ten Commandments, and the Gospel of justice, fair play and good-will. So shall the words Liberty, Equality, Opportunity, Intelligence, Integrity, be words big with meaning, watchwords, full of promise. Remember that "The manufacture of souls of good quality is the first business of a great nation." Remember that no gain of wage will compensate for loss of manhood, or the loss of the institutions of the republic.

This nation has sinned against its non-union brethern and stands condemned before high heaven. God forgive us for our sins, for our silence, for our coward fear! Oh, may God hold us back from the "trampled cornfields and the bloody streets."

Baltimore Syndicate Purchases Bay Ridge for Development as Summer Colony.

A syndicate headed by Thomas T. Boswell, H. G. Odenwald and T. R. Bond, of Baltimore, has purchased Bay Ridge at the mouth of the Severn river and on the Chesapeake Bay at Tolleys Point, just below Annapolis. It will be developed along broad lines as a high class water front for summer homes, and engineers are now at work laying out the tract, which contains about 400 acres and has four miles of water front on the bay and river. Lake Ogleton, covering about 100 acres, and Black Walnut Lake will be used as a harbor for small boats and canoes. Arrangements will be made later to run a line connecting with the Washington, Baltimore & Annapolis Electric Company's tracks. A concrete road will be run from the Eastport road at Annapolis to the water front. The place will be easily accessible to persons living in Baltimore and Washington. Offices of the syndicate have been opened at 14 E. Lexington Street, Baltimore.

Miami Beach Building Valued at Over Million.

Miami Beach, Fla., October 1—[Special.]—Building started since the first of the year here has a total valuation of $1,325,405. Plans for a large number of new residences, a hotel and two more apartment houses are now being made. It is expected that many permits will be issued within the next few weeks.

Peanut Crop Shows Shortage while Imports Continue Large

The peanut crop for Virginia and North Carolina will be about 3,000,000 bushels short of the 1919 crop according to the latest report of the Bureau of Markets and Crop Estimates, notwithstanding the increase in acreage for these two states previously reported.

According to reports now coming to the Peanut Growers Exchange, Inc., of Suffolk, Va., the shortage in peanuts for Virginia and North Carolina will be decidedly more than that indicated by the Government figures. Reports from a large number of growers scattered throughout the territory indicate an increase of 14% in acreage and a decrease of 24% in production as compared with last year. On this basis the 1921 crop would fall 2,000,000 bushels short of the crop of 1920 and 4,000,000 bushels short of the heavy crop of 1919.

Figures on imports and exports of peanuts and peanut oil have been issued from Washington showing that imports for the 1920-1921 season, largely from the Orient, were 47,989,230 pounds of peanuts, of which 42,628,034 pounds were shelled nuts. It is said that a considerable portion of these cheaply produced Oriental nuts are of the same general type as those grown in the Suffolk section and thus compete directly with American farmers. Exports of peanuts for the 1920-1921 season amounted to 13,140,000 pounds. Imports of peanut oil amounted to 18,676,181 pounds during the same period.. For the 8 months ending August, 1921, the imports were 4,366.318 pounds of unshelled nuts and 35,555,210 pounds of shelled nuts.

Imports during the fiscal year 1919-1920 totaled the equivalent of 192,584,636 pounds of unshelled nuts, or nearly 9,000,000 bushels as compared with domestic production during the 1920 season of less than 36 000,000 bushels. In addition to the importations of peanuts during the fiscal year, ended June, 1920, 170,160,367 pounds of peanut oil were imported, which called for the crushing of an even larger volume of peanuts abroad than was shipped here. The large importation of peanut oil during the 1919-1920 season with the low prices at which it was offered was a material factor in curtailing the peanut oil production of the United States.

Plan to Establish Truck and Dairy Industry—To Sell Farms and Build Homes on Liberal Terms.

Jackson, Miss., October 1—[Special.]—To build 25 farm houses within a radius of eight miles of Jackson and to bring in a similar number of experienced truck and dairy farmers is the plan the local Chamber of Commerce is putting into effect this fall. By this method a nucleus for a trucking and dairy industry will be established, and the cotton farmers of this section will be able to learn from their neighbors that there is a more profitable type of farming.

To carry out the actual business of buying land and building homes, the Chamber of Commerce has organized a Common Law Trust and a Farm Home Building and Loan Association. The business men of Jackson have subscribed for the stock of these two corporations and they are about ready to begin operation. The Common Law Trust will buy land in 40 and 80-acre tracts, build farm homes on them, and sell them at a normal profit to reliable farmers who can and will engage in trucking. The farmer makes a small payment, borrows 40 per cent of the value of his farm from the Federal Land Bank on a first mortgage, and the balance from The Farm Home Building and Loan Association. Both of these are long-term loans, the Federal farm loan running for about thirty-five years, the other for eighteen years.

One important feature of the plan is that the land, through the co-operation of the land owners, is to be bought at below the market value; no profit is to be taken by building material companies or contractors. The farmer can therefore buy his home through the Chamber of Commerce much cheaper than he can buy it as an individual on the open market.

Home Building Prospects Bright at Columbus.

Columbus, Ga., October 1—[Special.]—Local real estate men are confident that scores of dwellings will be erected here within the next few months, and that those who take advantage of the present opportunity to build will profit thereby. There is a real shortage of homes, and there is no indication that rents will be lowered. Two hundred houses are now under construction. In addition to the steady influx of persons from other cities many men from Camp Benning will make their homes here.

Big Extension Program of New Orleans Gas Company.

New Orleans, La., Sept. 24—[Special.]—Indicative of the steady growth of this city are the improvements being made to provide increased gas facilities by the New Orleans Gas Co., which is engaged in a building program necessitating the expenditure this year of more than $300,000. Next year's program will be just as extensive, according to present indications, and more than $2,000,000 will be required for essential improvements within the next five years, it is estimated.

The work is being rushed to completion before cold weather sets in. New mains are being laid, hundreds of new meters placed, and improvements will be made to the gas generating plant to increase the output about 2,800,000 cubic feet daily. Likewise improvements are under way on existing equipment with a view to increasing its output.

Marked Increase in Petroleum Consumption.

The outstanding facts of petroleum statistics for August, compared with those for July, are the decrease in imports according to Government reports of more than 4,500,000 barrels and the increase in consumption of 1,250,000 barrels, which, in spite of an increase of production of 636,000 barrels, resulted in a substantial check to the accumulation of stocks of crude oil that has been in progress for many months. The output for August was approximately the same as that for March, and only one million barrels below the record production of May, yet in its total value the August production is far below that of other months, having only about one-third the value of the smaller output of August, 1920. Another significant fact is that the number of productive wells completed during August is the smallest for the year and, indeed, for many months.

Stocks during August increased only 671,000 barrels, whereas since the beginning of the year stocks of crude oil have been increasing at rates between 6 and 8 million barrels a month. During August stocks of California petroleum increased 2,173,000 barrels and net stocks east of California increased 1,611,000 barrels, but stocks of Mexican petroleum held by importers in the United States decreased 3,113,000 barrels. The quantity of these stocks on August 31—168,023,000 barrels—is more than 52 million barrels greater than a year ago, an increase of 46 per cent.

Production in California decreased during August as compared with July, 221,000 barrels, which resulted in the State losing first rank to Oklahoma. Decreased production during August is reported also for Kansas, Louisiana, West Virginia, and Tennessee, but increases are reported from the other producing States. Arkansas continued its remarkable gain and in August produced almost as much as Louisiana, it being possible that when complete figures become available the State will have surpassed Louisiana in rank.

Bethlehem Shipbuilding Corporation Purchases Baltimore Dry Dockc

The three large plants of the Baltimore Dry Docks and Shipbuilding Co., in the Locust Point and Key Highway section of Baltimore have been purchased together with all equipment and good will of the firm by the Bethlehem Shipbuilding Corp'n. The purchase includes the south plant of the company on the lower side of Fort avenue, erected at a cost of more than $4,500,000 to build 8,800-ton boats to meet the war emergency; the lower yard on the upper side of Fort avenue used in the construction of boats of about the same size and in general repair work; and the third plant on Key Highway used formerly for building mine sweepers and repair work of all kinds. The several plants have large dry docks for handling vessels of the largest size, and have been modernly equipped in every respect for efficient and economical building of the biggest ships. The building ways at the South plant are of reinforced concrete construction and so built as to be capable of extension at any time for the building of vessels up to about 15,000 tons.

The Bethlehem plant at Sparrows Point has 10 large ship building ways of the most modern type in addition to two large floating docks and all facilities for building and repairing vessels of every kind.

The Dry Dock plants were taken over as of October 1.

Annual Convention American Cotton Association at Birmingham—President Harding to Speak.

The annual convention of the American Cotton Association will be held at Birmingham, Ala., October 26-29. The opening day of the convention will be held in joint session with the Birmingham Semi-Centennial Celebration, to hear an address by President Warren G. Harding. Business sessions of the convention will open on the 27th at the Tutwiler Hotel.

Several thousand delegates, farmers, merchants, bankers, and other allied business interests, are expected to take part in the discussions of vital economic measures pertaining to the American cotton industry.

Leading themes for discussion will embrace regulation of cotton production, food and feed crops for 1922; the orderly marketing of the 1921 crop and the carry-over of the 1920 crop; effective organization of cooperative marketing associations in all of the cotton states, and a more elastic and liberal system of agricurture finance for farmers, which is not possible under the short time commercial banking methods employed in this country.

Steady Improvment in Conditions in Natchez District.

Natchez, Miss., September 17—[Special.]—Many are the signs of returning prosperity in this section, and indications are that fall business will be the best in years. The Black River Lumber Co., at Willets, La., is now employing 200 men in its box and veneer departments, and this number will be increased with the opening of the mill proper. The box factory of Wilson & Co., is giving employment to 75 persons, with business showing a steady increase. The second cotton mill now in operation is increasing the number of employes and will be running at capacity in the near future. The increase in through freight over the lines of the Mississippi Central and L. & A. roads, the receipts of cotton from surrounding sections of Louisiana and Mississippi give assurance that business has turned the corner and progress will be upward. The good showings made by the National Box Co., the broom factory and compress, the Kemp Bend Gravel Co., and the nearby saw mills and gins is very encouraging.

Development Work in Louisiana Gas Fields Waits on Legislative Action—Status of Carbon Black Manufacture Now Uncertain.

Monroe, La., September 27.—[Special]—Development work in the Monroe gas field is almost at a standstill at present on account of the uncertainty concerning the policy of the State government in permitting the use of natural gas in the manufacture of carbon black.

Some time ago the State announced that no more carbon black plants would be granted license to operate in Louisana. That had the effect of preventing the construction of any new carbon black factories or the expansion of those in operation.

In the meantime the large interests who have been arranging to construct pipe lines to connect the Monroe gas fields with centers of population have become dissatisfied with the attitude of the State. The pipe line interests are demanding that the State prohibit the carbon black plants from drawing so heavily on the natural gas supply, and that the carbon mills be restricted to the use of waste gas. The pipe line people assert that they cannot afford to spend $15,000,000 to $25,000,000 in the construction of pipe lines until they are assured by the State that the carbon companies will not be allowed to exhaust the field.

Three large interests have been planning to construct pipe lines. One of these is the Union Power Company, which controls more than one-third of the proven area of the Monroe gas field. The Union Power Company was organized by J. S. Cullinan of Texas and the Frost-Johnson Lumber Company, who merged their land holdings into one corporation. The Union Power Company in turn arranged with the Fidelity Trust Company of Houston, Texas, to finance their pipe line, and the Arkansas, Louisana and Texas Development Company was chartered under the laws of Delaware for that purpose. These interests propose to construct a pipe line from the Monroe gas field to Alexandria, La., Lake Charles, La., Orange, Beaumont and Houston, Texas. Surveys of the route have been completed.

The second large interest planning to build a pipe line is a syndicate represented by H. C. Morris of Dallas, Texas, who is at the head of the North Texas pipe line system. F. W. Walbridge represents New York financiers in the syndicate. These interests in turn control the Ohio and West Virginia pipe line systems. Their plan is to construct a pipe from the Monroe gas field to Baton Rouge and New Orleans and Natchez, Miss., and intermediate points.

The third interest is represented by Frank I. Neville of Houston, Texas, who has been conducting negotiations with the Union Power Company and others with the view of getting gas for a pipe line from the Monroe field to Memphis, Tenn., and cities and towns in that section of the country. Mr. Neville told the interests he approached that he was representing Henry Ford and associates in the negotiations. Mr. Neville explained that his negotiations were contingent on the Ford interests leasing Muscle Shoals from the Federal government, as it was the intention of the Ford people to hook up the Louisiana gas fields with the Muscle Shoals project in development work.

A fourth pipe line project is being discussed, but it has not assumed tangible shape. This is a project of the carbon black interests to go into the gas pipe line business themselves.

The uncertain policy of the State has brought all the development work in the field to a halt, with the exception of drilling that is being done by the H. C. Morris interests in the northern portion of the Monroe gas belt. These interests have bought in several gas wells to supply their proposed pipe lines and they are still drilling.

The Legislature is in session at Baton Rouge, and little will be done in development work until that body lays down the policy of the State through new laws.

Trade School Now Open in New Orleans Will Help Solve Shortage of Skilled Labor

New Orleans, La., Sept. 8—[Special.]—The Delgado Central Trades School, the first distinctive unit trades school for white boys in the South and one of the largest in the country, has opened with an enrollment consisting of returned soldiers, sailors and marines, who are being trained at the expense of the Federal Board for Vocational Education. To accomodate them the school was opened several weeks before the regular term.

The returned soldiers will use the surplus capacity of the school, and by the time they have all been put into profitable lines of industry the school will be devoting its entire capacity to the boys of New Orleans who wish to become skilled artisans. In New Orleans and Louisiana in general there is an increasing demand for skilled labor.

In the past the boys who inclined to mechanical lines had no place where they could go for training. As a result, they either become unskilled laborers, or they went elsewhere to learn, and settled elsewhere. To remedy this condition, Isaac Delgado left a bequest to the city when he died in 1912, by which a trades school could be built if the city provided for its operation.

In May of 1918, the city, which accepted the bequest and the terms, appointed a board of managers, five of whom are members ex-offico, and five chosen from among the industrial commercial and professional men of the community, to plan the building and the course. The city architect, E. A. Christy, designed the building, which embodies the best points of arrangements of other trade schools in various parts of the country. The contractor was John Chisholm.

The school consists of four units—the administrative unit in which are the offices, classes, library and auditorium; two shop units containing six large shops which can be subdivided into smaller shops; and locker and washrooms, lunch room and heating plant. The four units form a hollow square connected by a continuous corridor on each floor. The school cost about $685,000, and the equipment approximately $100,000.

The auditorium will seat 1200 persons. At one end there is a large stage. Lectures on industrial subjects will be given here regularly.

A cafeteria will be opened and steamship cooking taught to those desiring to become chefs, and who will at the same time supply the pupils with meals at the lowest possible price.

The trades that are to be taught were chosen on the basis of numerical strength of thhe various local trades as shown by government census reports. They are carpentry, cabinet making, pattern making, plumbing, painting and tailoring. There is also a vocational course in which the students for whom a trade cannot at once be definitely determined will be given elementary instruction in various lines under the observation of experienced teachers, who will thus be able to ascertain the industry for which they show special aptitude.

The operation of the school is provided for by a special state tax of $50,000 a year, with the addition of some federal aid. The cost of operation will be $100,000 a year, and that amount will be forthcoming when capacity is reached. In the meantime, the government is paying the operating expense for the returned veterans.

The board of managers are: ex-officio-Mayor Andrew J. McShane, Commissioner of Public Property Wilbert Black, President of the School Board, Daniel J. Murphy, Henry C. Schumberg, member of the School Board and Superintendent of Schools, J. M. Gwinn; at-large George M. Glover, contractor, A. M. Lockett of A. M. Lockett and Company, Biddle W. Allen of Allen & Fredericks, and J. W. Billingsley, consulting engineer.

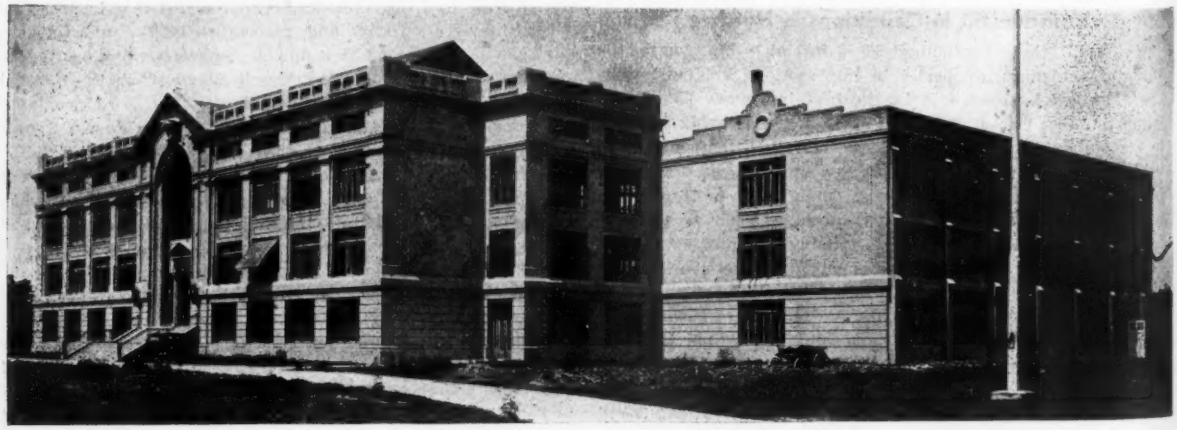
H. G. Martin is director of the school. He is a practical man and an experienced tradesman as well as an educator.

Packing Plants of Southeast Amalgamated.

Augusta, Ga., October 1—[Special]—Plans have been announced of the amalgamation under the name of the Southeastern Packing Co., of the Chipley Packing Co., Chipley, Fla., Davis Packing Co., Mobile, Ala., Waycross Packing Co., Waycross, Ga., Carolina Packing Co., of Orangeburg, S. C., Wilmington, N. C., and Beaufort, S. C. This will give a capacity of between 4,000 and 5,000 hogs and 1,000 cattle daily. Several additional plants may be taken over later. The general office location has not been decided but Savannah will probably be selected. J. E. Davis, president of the Davis Packing Co., will head the new organization.

Contract Awarded for 12-story Office Building.

Tulsa, Okla., October 1.—[Special.]—Work has begun on the new 12-story office building of the Atlas Life Insurance Company here. It will occupy a site 100 by 140 feet, and have a skeleton steel frame, a built-up roof, and reinforced concrete floors. Plans were prepared by Rush, Endicott & Rush, 101 Lorton Bldg. Contract for the steel frame has been awarded the St. Louis Structural Steel Co., St Louis, Mo., and to Brickner-Garbett Co., of Tulsa. The contracts for the remainder of the work will be awarded this month.



DELGADO TRADES SCHOOL RECENTLY COMPLETED IN NEW ORLEANS AT A COST OF $685,000 AND NOW IN OPERATION

$5,000,000 For Financing Peanut Crop

T. H. Birdsong, President of the Birdsong Storage Co., Suffolk, Va., has been elected General Manager of the Peanut Growers Exchange, Inc., which has a membership of over 5,000 growers, and represents over 50 per cent of the peanuts grown in Virginia and North Carolina.

It is stated that a special finance committee appointed to negotiate with the War Finance Corporation reports through its Chairman J. H. Alexander, Jr., of Scotland Neck, N. C., that it has taken this matter up with the authorities at Washington and had been given every assurance that the necessary funds for financing the peanut crop of the Exchange's members would be provided up to $5,000,000 if that much is necessary.

Plans 21-story Office Building for Memphis.

Memphis, Tenn., October 1—[Special]—Plans are progressing for the construction of a 21-story office building at the southeast corner of South Court Avenue and Maiden Lane by a company promoted by R. Brinkley Snowden. The cost of the project will exceed $1,000,000. Hanker & Cairns, of this city, are the architects. The building will be of steel construction with reinforced concrete floors, with terra cotta exterior, and Gothic architecture. Each of the floors will have 4,400 square feet of surface. It will be necessary to raze buildings now on the site before proceeding with the work.

Building Activity South Shows Steady Improvement—Future Encouraging

During the month of September the items published in the construction columns of the Manufacturers Record number 4,415, this total including 1,907 industrial development and 1,175 building items. In addition there were 4 railway items, 417 financial notices, 742 machinery, proposals and supplies wanted announcements and 4 foreign items. For August the items published totalled 3,494, including 1,475 industrial announcements and 967 building notices, in addition to 15 railroad construction items, 405 financial notes and 528 notices regarding machinery, proposals and supplies wanted.

During the month of August, 1920, the items published in the construction columns totalled 3,553, compared with the total of 4,415 for the same month this year. The total for July, 1921, was 3,356 items.

Road and street construction items for August numbered 448 compared with 384 for the preceding month. Dwelling notices were 290 while during July items of this character were but 185. School items for last month were 264 as compared with the total of 251 for the preceding month. A total of 154 water works projects were reported, while the total for July was 105 items. Church building items were 101 and 83 for August and July, respectively.

The increase during the past month in construction items is especially noteworthy as it shows a general increase in all the various lines of activity rather than in any particular one. Road building is being pushed in the various states in an endeavor to get work well under way before winter months. In many sections where road work has been delayed it is now going rapidly forward as a result of the recent reduction in freight rates on road building materials. Dwelling construction figures more and more prominently in each month's total, and is particularly interesting because none of the projects involve less than $10,000, and most of them are being undertaken by the owners themselves rather than by real estate developers and builders. School buildings are going up in increasing numbers in various cities to overcome present congested conditions due to failure to build during the period of high prices.

Many municipal developments of various kinds are going forward. Industrial building projects are likewise showing more activity than for some time, and on the whole the general construction situation is good, and optimism prevails as a result of the encouraging future outlook.

Ordinarily the seasonal slump in construction activities manifests itself during the latter part of August and the first of September, but August building activities far surpass those of the preceding month, and preliminary reports from Southern cities for September show that the activity has not slackened to any extent; in fact, in a number of cities there have been big increases in building of all kinds. Many large office buildings, hotels, association and fraternal meeting houses and similar structures have been just recently started.

The total number of items published in the construction columns for the first nine months of 1921 is 35,939, compared with the total of 35,506 for the same period of 1920.

Industrial Developments	Total for Sept.	Total for Jan. to Sept. Inc.
Airplane Plants, Stations, etc.	2	26
Bridges, Culverts, Viaducts	103	732
Canning and Packing Plants	28	167
Clayworking Plants	13	76
Coal Mines and Coke Ovens	58	570
Concrete and Cement Plants	7	57
Cotton Compresses and Gins	17	118
Cottonseed-Oil Mills	2	27
Drainage Systems	18	167
Electric Plants	91	551
Fertilizer Factories	6	51
Flour, Feed and Meal Mills	10	157
Foundry and Machine Plants	26	353
Gas and Oil Enterprises	92	823
Hydro-Electric Plants	6	69
Ice and Cold Storage Plants	36	291
Iron and Steel Plants	0	5
Irrigation Systemes	1	10
Land Developments	47	369
Lumber Manufacturing	25	297
Metal Working Plants	29	181
Mining	17	180
Miscellaneous Construction	64	417
Miscellaneous Enterprises	102	1,097
Miscellaneous Factories	148	1,337
Motor Cars, Garages, Tires, etc.	155	978
Railway Shops, Terminals, Roundhouses, etc.	5	40
Road and Street Construction	448	3,438
Sewer Construction	127	724
Shipbuilding Plants	2	20
Telephone Systems	17	152
Textile Mills	26	137
Water-Works	154	862
Woodworking Plants	25	300
	1907	14,779
Buildings.		
Apartment Houses	57	538
Association and Fraternal	29	341
Bank and Office	61	464
Churches	101	992
City and County	31	256
Court Houses	7	76
Dwellings	290	2,058
Government and State	3	94
Hospitals, Sanitoriums, etc.	49	298
Hotels	55	372
Miscellaneous	47	432
Railway Stations, Sheds, etc.	11	92
Schools	264	2,370
Stores	124	1,018
Theaters	17	255
Warehouses	29	295
	1,175	9,951
Railroad Construction.		
Railways	4	116
Street Railways	0	29
	4	145
Financial.		
Corporations	59	689
New Securities	358	3,241
	417	3,930
Machinery Wanted.		
Machinery, Proposals and Supplies Wanted	742	5,483
Fire Damage.		
Fire Damage, etc.	170	1,651
Totals	4,415	35,939
Foreign	4	12

Bonded Warehouses and Limited Acreage Planned as Aids to Better Cotton Price in Future.

New Orleans, La., Sept. 24—[Special.]—Laws to encourage the erection of bonded warehouses in which the farmers may store their cotton, get sufficient advances to meet their immediate needs, and hold it until the market is favorable to sale, will be asked of the Louisiana legislature, as a result of the meeting here of the Louisiana division of the American Cotton Association, in connection with the Interstate Farm Congress.

The meeting also went on record in favor of limiting cotton production to one-third of the land under cultivation, so that the balance may be put in food and feed crops, and a high price assured cotton.

Cotton cannot be produced for less than 25 cents a pound—and bonded warehouses can be built very cheap, it was brought out at the meeting.

"Before the boll weevil came," said Pal M. Potts, a planter of Natchitoches, "It used to be a poor crop that gave us only 12 bales per family. Since the boll weevil, the yield has been one, two and sometimes three bales per family; never more. In other words, at the best rate of production, it takes us four years now to raise the cotton that we formerly produced in one.

"The average price of cotton during the last five years has been 12 cents in New York. Three bales, then, would mean something like $180. As most of the cotton is raised on a share basis, the farmer got about $90. That means something like 30 cents a day for his labor.

"Cotton cannot be produced for less than 25 cents a pound where we have the boll weevil. I would rather make cotton for eight cents a pound under former conditions, without the boll weevil, than for 30 cents now.

" I have tried every method suggested to get rid of the weevil, but they have failed. There is only one sure method. That is for the cotton belt, through legislation, to prevent the planting of any cotton for one year. The weevil cannot propagate its species unless it has cotton plants to lay its eggs in. If there was no cotton for one year, the weevil would be wiped out.

"The next year, instead of making three bales to the family, we would make 12. That would be an average of six bales a year for the two years including the one in which no cotton was raised.

"I believe that one application of this dose would wipe out the weevil, but if one wasn't necessary, the alternating system could be used until it did. The average yield per annum would be twice what it is now. This would be better for the farmers, for the spinners, for the South and for the country."

"It cost us only $3000 last fall to build our bonded warehouse, with a capacity for 1000 bales," said S. D. Bowers, secretary of the Boyce (La.) Cotton Farmers Warehouse Association, said to be the first co-operatively built and operated bonded warehouse in the South. "Due to the drop in building costs, it could now be built for $2000. The man who is in charge is under a $5000 bond. We have a cotton grader, and the cotton is weighed and graded as soon as it is received. A receipt is given the farmer, and this receipt he takes to the bank and receives a substantial advance on it. He doesn't sell until the market is ripe."

W. B. Thompson, a prominent cotton factor of New Orleans and president of the Louisiana division of the American Cotton Association, hammered hard on the question of controlling acreage and developing a chain of bonded warehouses.

"Through lack of organization, the farmer has been kept down," he said. "The country will be on the high road to prosperity if the farmers continue to plant only one-third of their acreage in cotton, and the rest in food and feedstuffs. They will cheapen their own cost of living, and they will assure themselves good prices for their cotton, as proved by the experience of this year, when a reduced acreage sent the price up. This is only the application of elemental business principles to an industry which has been sadly lacking in business methods."

"If we limit cotton to an 8,000,000 or 9,000,000 bale crop next year, we will bet 40 cents," said James F. Scip, of Alexandria, a cotton planter. "If we raise 14,000,000 bales we may get 10 cents. And we can only raise a large cotton crop at the expense of food crops.

"The price of cotton is made by market manipulation. Eliminate the carry-over, and you will break the stranglehold the gamblers have on you."

Financial Situation in East Much Better—Bonds Reported in Good Demand.

Beaumont, Tex., Sept. 24—[Special.]—The financial situation in the East has undergone a wonderful change within the past thirty days and the future has brightened considerably, is the information brought to Beaumont by M. Geuiterman, chairman of the board of the Guaranty Bank & Turst company of this city, who spends most of his time in New York.

While Mr. Geuiterman makes his headquarters in New York, he spent the summer in the mountains where he came in contact with prominent financiers from practically all eastern financial centers. "While in the mountains," said Mr. Geuiterman, "I met prominent business men from Boston, Philadelphia, and other eastern money centers outside New York. They are all taking a better view of the situation. Their tone is more cheerful and you can see a marked difference in their attitude toward the future. Business conditions are rapidly improving and it can be safely said that the worst part of liquidation is over. Money is getting to be plentiful and is cheap.

"Conditions as I see them have brightened considerably in the past thirty days. There is one outstanding encouraging feature above all others—the big men are investing. They are taking industrial securities which is a healthful sign within itself.

"Take bonds for instance. They are the best business barometer we have. They are gradually advancing on the market. Buying bonds is not speculative, but it is an investment. They are now passing into the hands of bigger men which is stabalizing the market.

"Bonds of our own country are not only advancing, but there is a marked improvement in others. Take Jap bonds. A year and a half ago they were selling at 72. A few days ago they had reached 85 and when I left New York they sold at 87. This indicates the turn of the financial mind and it is being gradually reflected in business.

"It will, of course, take some time to bring about a complete readjustment, but as I said before, we have passed the worst part of liquidation, and conditions should rapidly improve. When business was at the lowest ebb, we were always in danger of going farther backwards, but with it well over the divide there is no reason why it should not improve rapidly."

Form Merchants Association

About fifty merchants of Ybor City, the Spanish-Italian quarter of Tampa, Fla., met last week at the Italian Club Building and organized the Ybor City Merchants Association. Officials of the new organization are: President, Phillip F. Licata; Vice-President, Ramon Sierra; Treasurer, M. G. Rosemberg; and Acting Secretary, Jose R. Sanfeliz.

North Carolina Tobacco Markets Open—Good Prices Prevail

Raleigh, N. C., September 25,—[Special.]—Tobacco markets are now open over the state, those in the Piedmont section being the last to open this week, and hundreds of thousands of dollars worth of the golden weed are being turned into trade channels. Though there is a relatively short crop due to drouth, prices are good and are averaging from 20 to 30 cents a pound, much better than last year. Extra fine quality baskets have sold at a dollar a pound, and much at forty to sixty cents.

With the opening of two new warehouses here, Raleigh is established as a tobacco market for the first time in fifteen years. Greensboro also strengthened its position with two new and immense warehouses. Winston-Salem, the biggest market of the Piedmont, reports an opening break of 350,000 pounds at fine prices. Wilson, the biggest bright-leaf market in the world, selling 63,000,000 pounds last year, considerably over one-tenth of the world production, has already marketed 4,000,000 pounds the first two weeks of this season, largely to foreign buyers representing every nation. Prices there range from two cents a pound for trash, to one dollar for very choice.

Tobacco will add millions of dollars to the wealth of the state this fall, and much of it will go to wipe off last year's debts, giving the farmer a clean slate again, and money to spend. This crop was made at a much lower cost than for several years, and as prices are advancing, represents a good margin of profit.

Revival of Mining Operations in Mexico.

Monterey, Mexico, Sept. 22—[Special.]—General renewal of mining operations in the State of Chihuahua and a big improvement of the industry in the states of Durango and Coahuila are now taking place, according to reports received here. It is stated that the owners of more than thirty of the larger mines in Chihuahua held a meeting recently and entered into an agreement to resume full operation of their respective properties. One of the largest interests represented at this meeting was the American Smelting and Refining Company which is rapidly bringing its several smelting plants in Mexico up to normal output of bullion, and is gradually increasing the ore production of its mines. It is announced, that the Company has purchased several large mines in the states of Durango, Chihuahua and Coahuila. One of the largest of these is La Esmeraldo, formerly a large producer of rich silver ore. It has been idle for several years, but it is planned by the American Smelting and Refining Company to rehabilitate the property and bring its ore output up to the highest possible notch.

In the Cusihuiriachi district, Chihuahua, several of the older properties that have records of producing big quantities of ores, have passed into hands of Americans and Mexicans, who have taken steps to re-open them. One of the most noted of these is the Campanario group, title to which was forfeited by the government for non-payment of taxes. These mines have been taken over by Ignacio Rodriguez, a well known mining engineer.

$2,000,000 House Building Development.

St. Louis, Mo., October 1—[Special.]—H. E. Prettyman Realty Co., of this city plans the erection of 250 houses of stucco, hollow tile and brick construction at a total cost of approximately $2,000,000. George W. Pipe, Charles Deetring and different St. Louis firms are architects for the various houses. Ground for the first work was broken Sept. 17. The company is at present organizing its own force to go ahead with the work for which bids will be requested in the near future.

North Carolina Activities Noted by a Traveler

Raleigh, N. C., September 27—[Special.]—The new cotton mill at Mortimer, in Caldwell County, has begun operations. The survey for the hydro-electric plant on Wilson's Creek, in Caldwell, has begun. The field work for this plant, the power from which will all be utilized by industries in the town of Lenoir, has been finished. The dam will be in a National Forest and the U. S. Geodetic Survey is now measuring the water-flow.

Machinery is now arriving at Boone, for hard surfacing the "Boone Trail" highway across Watauga county to the Tennessee line.

The Stranford Lumber Company has begun the operation of its plant at Lenoir and is making building materials of all kind. It has a large timber area and several saw mills.

The highest summer resort in this state, Blowing Rock, altitude 4500 feet, is closing a remarkable season. Its visitors are from all parts of the South and some from the North and West. On the Mayview Park development there, Charlotte people have expended $1,000,000.

Caldwell county is to have a creamery, on the cooperative plan, to be supplied by 700 Holstein and Jersey cows, owned by Oak Hill and Little River farmers.

The report, State Geologist Joseph Hyde Pratt makes, in minerals production in North Carolina the past year is gratifying, showing a total value of $8,152,000, as against only $1,604,000 in 1900.

Planning Exposition Building.

Charlotte, N. C., Sept. 21—[Special.]—The board of directors of the Carolinas Exposition, Inc., the company staging the Made-In-Carolinas exposition here, have decided to make the exposition a permanent feature of Carolina industrial life and to increase the capital stock from $100,000 to $500,000. It is planned to erect a new and larger building in the heart of the city for the permanent home of the exposition, construction to be begun as soon as the arrangements can be made.

A special building was erected by the exposition company this year but it was found inadequate to house the products of all the exhibitors seeking admission. The board of directors was increased, a number of the bigger exhibitors this year being added to the board. These include: J. G. Anderson of Rock Hill, S. C., president of the Anderson Motor Company; J. T. Ryan of High Point, secretary of Southern Furniture Association; J. Pope Matthews of Columbia, S. C., banker; C. A. Penn of Reidsville, N. C., vice-president of American Tobacco Company; J. H. Separk of Gastonia, N. C., cotton manufacturer; M. L. Cannon of Concord, N. C., cotton manufacturer; Julian S. Carr, jr., Durham, N. C., president of the Durham Hosiery Mills Company. The old officers were reelected. John L. Dabbs of Charlotte is president; C. L. Etheredge of Charlotte secretary and J. C. Patton of Charlotte, executive secretary.

Architect Prepares Many Plans for Church Structures.

Richmond, Va., Sept. 24—[Special.]—H. L. Cain, architect, of this city, has completed plans recently for the following structures: Church and Sunday School building at Amelia, Va., costing $10,000; Sunday schoool building addition at Baltimore for the M. E. Church South, costing $34,000, for which the Consolidated Engineering Co. has the contract; a church and Sunday school building costing $100,000 for the Barton Heights Baptist Church, to be 110 by 110 feet of brick and stone construction with slate and composition roof, the contract being awarded to F. H. Boatwright, Richmond; a $35,000 Sunday school building for the Grove Ave., Baptist Church, Petersburg, Va., 60 by 70 feet of brick and stone with slate roof.

Marked Improvement in Glass Manufacturing Industry.

Morgantown, W. Va., September 30—[Special.]—There nas been a marked improvement in the glass manufacturing industry of West Virginia since September 1. During the last two or three weeks there has been a resumption of operations at a number of glass plants in northern West Virginia. The outlook for the next few months is decidedly encouraging both at Clarksburg and Morgantown. The Union Stopper Company is operating practically on a full time basis as the Seneca Glass Company. The Economy Company is also increasing its working time and will soon be operating at normal capacity. It is generally understood that the Athens Company will light its fires about October 17. At Clarksburg the plant of the Pittsburgh Glass Company and the plants of other companies are also operating.

Texas Graphite Developments.

Writing to the MANUFACTURERS RECORD relative to graphite developments in Texas, Herbert B. Johnson, president of the Huff Electrostatic Separator Co., Arlington, Mass., says:

"During the past four years we have built and put into operation the largest graphite plant in the world making the highest grade natural products produced. The writer is general manager of the Southwestern Graphite Co., in Burnet, Tex.

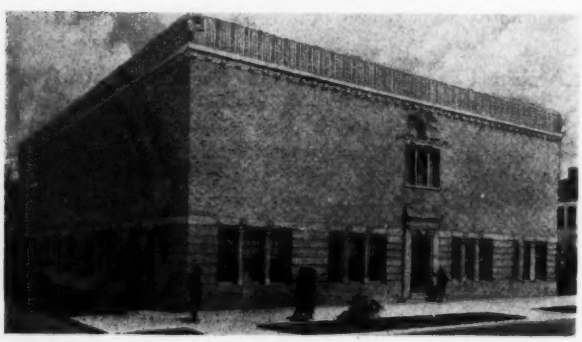
"Our combination of processes are patented and we have not done much advertising regarding our activities. At the present time, however, our production is up to 800,000 to 1,000,000 pounds per month."

Deep Water Harbor Project at Corpus Christi

Corpus Christi, Tex., Oct. 1—[Special.]—The United States engineers are just completing a report on the deep water harbor project here which will probably come before the Board of Engineers for consideration within the next 60 days. The project involves the dredging of a channel from the jetties at Port Aransas to this city a distance of about 21 miles. It provides for the expenditure of approximately $1,000,000 by the city and Neuces county for wharves and terminals. An appropriation of $2,500,000 will become available from the State for seawalls, breakwaters, etc. These expenditures will equal if not exceed the money to be expended by the Government..

The establishment of the port here will place harbor facilities from 100 to 200 miles nearer a large area of Texas.

SCOTTISH RIGHT CATHEDRAL, TAMPA, FLA.



Unusual architectural features are embodied in this building, plans for which were prepared by M. Leo Elliott, architect. Chas. T. Friend is the general contractor.

The Life Blood of a Business Withdrawn and the Consequence

McClure's Good Land Agency.

Demopolis, Ala., Sept 15, 1921

Editor Manufacturers Record:

Whether the average citizen can explain himself or not we have no confidence in the present Control of the Federal Reserve Board. We feel betrayed betrayed ba a government agency who largely brought about a condition they were created to avoid and I have no faith whatever in hearsay that had it not been for the Federal Reserve System we would have had a panic. What more could we have had? A slow death of starvation is far more to be dreaded than a panic with its early revival. Many a good man is going down by the deflation policy of an administration which invited all to get into the balloon and ride.

This thing should be sifted to the bottom and the American people know the truth in order to bring about such reform at our great citadel of credit as will inspire confidence. All this talk of suffering by reason of conditions abroad reminds me of a father who blames a child for errors committed in simply following in the footsteps of a parent from whom was expected help and inspiration.

During the storms of war the Federal Reserve System did function successfully because the people backed them up. Having failed to reasonably finance the stress of peace, the people feel they were betrayed, and indeed they were.

The trouble with the people is they act like a lot of dupes and allow themselves to be herded like cattle to the slaughter. But it is a crime to take advantage of the ignorance of the average American citizen as to this complicated and complex matter of finance and credit. Thousands failed to study the question, having confidence in the Reserve System, to scent the battle from afar and stem the tide, rather than afford shelter to those classes who needed it less and were profited thereby.

The advice to lay something aside for a rainy day is good and timely but the only thing now of any benefit whatever is legal tender and any fool can realize there is not enough of that commodity to go around and make all comfortable who would conserve it. To lay such stress upon ready cash and to deflate other things of value, more valuable than money; to inflate an article of scarcity and put it in hiding which only serves to pay for the things that clothe, feed and comfort mankind, accomplishes nothing but to kill confidence and credit and clog the wheels of commerce. It gives the advantage to the animal who lives upon his own flesh and blood and puts out of business the animal that would fatten upon the green grasses of God's own provision of natural nutriment. What the Federal Reserve Board should have done is to use its power to stabilize the things of necessity that money buys, rather than so inflate the power of money. It does not seem to square with common sense to deflate the value of what mankind produces and inflate to abnormal power the things we get in exchange for what we produce, unless there be an ulterior and cowardly motive to impose upon those who do most of the fighting in times of war and pay most of the taxes in times of peace. To lessen the buying power of the people lowers the productive power of the nation. The manufacturer who may have favored such erroneous capers of deflation now feels the reflex action from the weakness of those from whom he expected a profit. If a farmer lowers the production of his soil rather than increase it, the Reserve Board was right in its drastic deflation policy by witholding and drawing in from business its very life blood of credit.

W. C. MCCLURE.

THE IRON AND STEEL SITUATION

Steel Production Improvement Greatest in Light Lines

Pittsburgh, Pa., October 1—[Special.]—Steel production in the past two weeks has been at the rate of about 33 per cent of capacity, which compares with the rate of a trifle under 20 per cent at the low point, about the middle of July. Production is relatively good in sheets, wire products, tin plate and tubular goods, and very poor in bars, shapes, plates and rails. Sheet mills are operating at about 75 per cent, making the best showing of any finished steel product. As it is in the light lines that production is at the higher rates the production of steel, in point of tonnage, is low, the heavy rolled products, bars, shapes, plates and rails, pulling down the average. The increase in tin plate production, now at 50 or 55 per cent of capacity against about 25 per cent in July, is phenomenal, for September is normally the poorest month of the year by reason of the demand against the canning crops being out of the way. The increased production is due to liquidation of mill stocks in the past few months, and increased demand from the general line consumers, who had stocks of tobacco, paints, oils, varnishes and various other prepared articles to liquidate.

With a 33 per cent operation the steel demand is still subnormal in relation to the volume of general business activity of the country, but not nearly as far subnormal as it was last July. The improvement that has occurred thus far has been largely in the nature of recovery or readjustment, through buyers of steel liquidating their stocks of steel and of manufactured wares, a process which is not entirely completed even now, but part of the improvement is due to resumption of buying by farmers, particularly in sheets, wire products and pipe. This buying has been especially marked throughout the South. Early in August orders began to appear from Southern jobbers who had not been heard from for many months, and there have been numerous repeat orders since.

Without any important change in the general business and industrial situation steel mill operations should work up to a rate of 40 or 45 per cent by the completion of liquidation of stocks in the hands of buyers, and of wares made from steel in the hands of distributors. For expansion beyond, say, 45 per cent operation, the steel industry needs: (1) Improvement in general business; (2) Inception of more large construction projects; (3) A resonable amount of railroad buying. "Reasonable" means that the railroads actually need, not the absurd "40 to 50 per cent" of steel production still sometimes heard of, though the proportion has been out of date for a quarter century. It held good only when railroads were being built and iron producing capacity was vastly less than at present. Thus, in 1887 nearly 13,000 miles of railroad was built, while in the past few years more line has been abandoned than built, and pig iron producing capacity in 1887 was one-seventh what it is now. The railroads should be a 10 or 15 per cent customer of the iron and steel industry, not a 40 or 50 per cent customer. Just now they are practically no customer at all.

From a long range viewpoint steel prices should be considered practically stationary. With reductions in freight rates, which will hardly come within the next few months, and with declines in wages, which will not occur unless or until there is a decided decline in the living cost, not in immediate prospect, steel prices can properly be reduced. Just now, on the other hand, the tendency is in the direction of a slight upward reaction, for steel prices reached too low a level in August, representing losses to producers in nearly all cases. Three weeks ago prices of wire products advanced $2 to $3 a ton, and shortly afterwards sheets advanced $5 a ton. These advances were well held, but there is not much new buying since a large volume of business was placed in anticipation of the advances. Bars, shapes and plates stand at about $1.00 and may possibly advance within a week or two.

Betterment in Alabama Iron Situation in Evidence.

Birmingham, Ala., October 1—[Special]—Decided improvement in the Southern pig iron market is to be noted this month, production materially improved and shipments speeded up some. Quotations are on a firm $19 per ton base, standard No. 2 foundry, 1.75 to 2.25 per cent silicon, with $1 and $2 premium on certain brands of the product. The Alabama Company will resume operations at one of its Gadsden blast furnaces before October 10 and the Republic Iron & Steel Company will have one of its furnaces at Thomas in operation by the first part of next week. The Woodward Iron Company has a third furnace in readiness and will start it up this month. The Sloss-Sheffield Steel & Iron Company is steadily reducing its accumulated stock of iron, but 50,000 tons of a very large amount being on hand. This company will not start up a furnace this month but scarcity of grades may compel resumption early next month. The greater portion of the iron being sold is being melted right in this district though during the past few weeks there have been some inquiries and sales resulting for shipment into the Chicago and St. Louis territories. New England is asking for iron and despite the $10 per ton freight, probabilities are for some business to be booked. Production right now is on a basis of about 80,000 tons a month but this will be increased to more than 95,000 tons in October.

Cast iron pipe and sanitary pipe plants are melting pig iron steadily in the Birmingham district with business still coming in, especially for soil pipe, building activities throughout the country being felt. The cast iron pipe trade appears to be holding on longer this year than before, but there was inactivity for a long time. Practically every sanitary or soil pipe plant in this section is working on more than 70 per cent capacity.

In steel, the steel wire and wire products mills are doing exceptionally well, effort being made to bring out the largest output possible. Steel rail production at the big steel plant of the Tennessee Coal, Iron & Railroad Company is being pushed, night and day turn having been on for several weeks, considerable of the product being shipped to China and Japan. Considerable rail is being purchased by domestic railroads and several miles of railroad are under construction within 10 miles of the rail mills.

The mills on cotton ties and bands are in operation. Foundries and machine shops are hopeful of being able resuming on a healthy scale in the very near future.

The new car plant of the Chickasaw Shipbuilding & Car Company is delivering cars steadily on orders received before the works were completed. Within a short while it is expected the plant will be going at capacity.

The coke market shows little improvement. The Semet-Solvay has resumed operations at its Ensley plant. The Alabama Company is igniting more of its bee-hive coke ovens in the Brookwood-Searles section. The Central Iron & Coal Company at Holt, in Tuscaloosa county, has resumed operations at its blast furnace and is making a special brand of iron. This company has also resumed more than 50 per cent of its by-product coke oven plant and its coal mines are running full output.

The Barrett Company is using pitch, a residue from its tar plant at Fairfield, in the manufacture of coke, using some of the bee-hive ovens of the Republic Iron & Steel Company at Thomas. The Republic Company this week resumes

operations at its coke ovens at Thomas and starts up its large Sayreton coal mines.

The scrap iron and steel market shows but little activity, except in stove plate and No. 1 cast. Stove foundries are receiving some business. Quotations follow.

PIG IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, $19; No. 1 foundry, 2.25 to 2.75 per cent silicon, $19.50; iron of 2.75 to 3.25 per cent silicon, $20.00; iron of 3.25 to 3.75 per cent silicon, $20.50; iron of 3.75 to 4.25 per cent silicon, $21.00; charcoal iron, $35.00.

OLD MATERIAL

Old steel axles	$14.00 to $15.00
Old iron axles	14.00 to 15.00
Old steel rails	12.00 to 14.00
Heavy melting steel	12.00 to 12.50
No. 1 R. R. wrought	12.00 to 13.00
No. 1 cast	17.00 to 17.50
Stove plate	13.00 to 14.00
Old car wheels	14.00 to 15.00
Old tramcar wheels	13.00 to 14.00
Machine shop turnings	4.50 to 5.00

Textile Mill Notes

The erection of a slasher room addition is planned by the Shelby Cotton Mills of Shelby, N. C.

The Harkins-Hammack-Whitlock Co., of Hendersonville, N. C., has been incorporated with $100,000 capital stock by W. D. Hammack, I. E. Harkins and G. T. Whitlock hosiery will be manufactured.

Improvements are progressing at Merrimack, the mill village of the Merrimack Manufacturing Co., near Huntsville, Ala. New streets have been laid, sidewalks are being curbed, guttered and concreted, houses have been repaired, etc. Several weeks ago a tarvia road from Merrimack to Huntsville was completed.

The establishment of a branch knitting mill at Marion or Wytheville, Va., is planned by the Paul Knitting Mills of Pulaski, Va.

TEXTILE

To Have Weekly Capacity of 2,000,000 Yards of Cloth.

Improvements are now in progress at the plant of the Union Bleaching & Finishing Co., Greenville, S. C., which, after completion, about January 1, will enable the company to handle 2,000,000 yards of cloth weekly and also to engage in mercerizing muslin, cambric, sateen, and other similar fabrics. The plant is being enlarged and new machinery installed. About 350 operatives will be employed when the work is completed.

Southern Textile Mill Developments for Third Quarter 1921

Textile activity during the third quarterly period of this year shows a large increase in the amount of capital involved in the organization of new cotton mill companies. Seven new organizations were reported formed for the production of cotton products, the combined capitalization amounting to $11,425,000. This amount includes the $10,000,000 capitalization of the Planters & Merchants Mills of New Braunfels, Tex., organized for the purpose of building a chain of mills in Texas for the manufacture of cotton cloth and yarn. This company's initial plant is to be located at New Braunfels and will be equipped with 10,000 spindles and 400 looms for a daily output of 15,000 yards of gingham when running two shifts.

Reports of improvements and machinery installations to be made by established cotton mill companies involve an expenditure of several hundred thousand dollars, the number of new spindles announced being 8,000 and of new looms 50.

The following tables give the names, locations, character of production, capitalization, etc., of the new mills organized, also the character of improvements etc., announced for established cotton mill companies for the months of July, August and September:

NEW COTTON MILLS AND INCORPORATIONS.

Name of Company.	Location of Plant.	Character of Product.	No. of Spindles.	No. of Looms.	Capital of New Company
North Carolina					
Woodson Mills Co., Inc.	China Grove	Table damask	....	47	$100,000
Margrace Mills	Kings Mountain	Cotton goods	....	..	600,000
Patricia Mills	Kings Mountain	Cotton goods	....	..	200,000
Pauline Mills	Kings Mountain	Cotton goods	....	..	400,000
Oklahoma					
Cotton Products Co.	Muskogee	Cotton batting	....	..	100,000
South Carolina					
Jenkins Mills	Batesville	Cotton yarns	....	..	25,000
Texas					
Planters & Merchants Mills	New Braunfels	Gingham	10,000	400	10,000,000
			10,000	447	$11,425,000

COTTON MILL IMPROVEMENTS AND EXTENSIONS

Name of Company.	Location of Plant.	Character of Product.	Character of Improvements.	No. of Spindles	No. of Looms
Georgia					
Eastman Cotton Mills	Eastman	Sheeting	Addition	4,000	..
North Carolina					
Carolina Bagging Co.	Henderson	Canvas	Additional machinery	....	..
Kindley Cotton Mills	Mount Pleasant	Cotton yarns	$200,000 improvements	....	..
South Carolina					
Royal Mills	Charleston	Sheeting, etc.	Additional machinery to cost $55,000	....	..
Beaumont Mfg. Co.	Spartanburg	Sheeting, etc.	$16,000 improvements	....	..
Tennessee					
Columbia Cotton Mills	Columbia	Sheeting, etc.	Additional machinery to cost $50,000	4,000	50
				8,000	
Total for first quarter of 1921				32,000	25
Total for second quarter of 1921				5,000	200
Total for third quarter of 1921				18,000	497
Total for nine months				55,000	725

RAILROADS

Cotton Seed Freight Rates Too High.

Amarillo, Texas, Sept. 30.—[Special.]—Formal complaint has been filed with the Interstate Commerce Commission by the Panhandle-Plains Chamber of Commerce against ninety railroads, charging that they are violating the rules of the commission in their rates on cotton and cotton-seed products. The complaint states that a very large proportion of the production of the Panhandle of Texas comes from the live stock industry and such industry is the foundation of the financial interests and prosperity of this section and that for five months of the year, cotton-seed products of all kinds are very largely depended on for the feeding of cattle and that in this section there is only one cotton-seed oil mill and that of very small capacity. The bulk of the cotton-seed products used to come from the cotton region in the central and southern portions of the state and take maximum rates.

It is pointed out that the price of cotton-seed products in Texas is determined by the world market and the price at shipside at the Gulf ports, while the price of cattle of the Panhandle is fixed by the market at the slaughtering centers and subject to all conditions affecting such markets.

The complaint further states that under the conditions affecting the live stock interests of the Panhandle of Texas and the effect of the price of cotton-seed products upon such business, the present rates on cotton-seed products are a serious menace to the cattle industry of this region.

Baltimore & Ohio Net Earnings Increase.

Earnings of the Baltimore & Ohio Railroad Co., for the eight months ended August 31, according to an official statement, were as follows: Railway operating revenues, $130,702,162; decrease as compared with the corresponding period of last year, $7,301,311; operating expenses, $111,529,274; decrease, $32,029,090; net revenue from railway operations, $19,172,888; increase, $24,727,779; net railway operating income after railway tax accurals, uncollectible railway revenues, and rentals of equipment and facilities, $12,215,661; increase, $23,659,456.

Earnings for the month of August were: Railway operating revenues, $17,933,438; decrease as compared with the same month of last year, $1,210,891; railway operating expenses $14,492,036; decrease, $9,328,406; net revenue from railway operations, $3,441,402; increase, $8,117,515; net railway operating income, $2,558,415; increase, $8,587,647.

City Will Run Street Cars.

Stockholders of the Goldsboro Street Railway Co., of Goldsboro, N. C., in meeting there Sept. 22, sold to the city, it is stated, all outstanding shares in the company and the line will be owned and operated by the city government. No cars have been run, it is stated, for nearly a year owing to repaving work, but new rails have been laid with steel ties on a cement base. Six electric cars have been bought and a 10-minute schedule is to be established soon.

Authorized to Finance Construction.

The Oklahoma & Arkansas Railway Co., which proposes to build a line 28 miles long from Salina to Kansas, Okla., has been authorized by the Interstate Commerce Commission to issue $307,000 of capital stock in fulfillment of its plans. H. L. Traber, of Muskogee, Okla., is president, but J. W. Hoffman, 618 Bryant Building, Kansas City, Mo., has charge of matters relating to the award of construction contracts.

Study of Railroad Consolidations.

The board of economics and engineering recently established by the National Association of Owners of Railroad Securities, and of which F. A. Molitor is chairman, is making a study of the consolidations of railroad properties proposed under the Transportation Act of 1920. President S. Davies Warfield, of the Association, in announcing the authorization of this work by the Board, observes that the effect of such consolidations would be "far reaching," and a letter sent out by Chairman Molitor requesting information from railroads for the use of the committee, recalls that the projected consolidations are not compulsory and remarks that they could become effective only through co-operation of the security owners of the different lines. After a thorough study of the subject the Board proposes to prepare a plan of consolidations to be submitted to the Association, with recommendations as to joint use of terminals and other facilities.

Concerning the difficulties lying in the way of the proposed consolidations Chairman Molitor notes in his letter that the requirement of the Transportation Act "that the proposed large consolidated systems shall be arranged so as to 'earn substantially the same rate of return upon the value of their respective properties' forces consolidations based on accounting rather than service or the necessities of the public."

$63,000,000 Car Trust Certificates Sold.

The Director General of Railroads has announced the sale of another block of car trust certificates amounting to $30,398,500, which makes the aggregate thus far sold $63,482,600. Among those just sold in the South and Southwest are the following: Atlantic Coast Line and Louisville & Nashville Railroad as lessees of the Georgia Railroad, $631,200; Illinois Central Railroad, $5,176,000; Cincinnati, New Orleans & Texas Pacific Railway $510,400; Richmond, Fredericksburg & Potomac Railroad, $524,800; Kansas City Terminal, $100,000; Terminal Railroad Association of St. Louis, $182,400; Nashville, Chattanooga & St. Louis Railway, $692,000; Atchison, Topeka & Santa Fe Railway, $1,471,200.

Plan Extension to a Small Texas Road.

Nacogdoches, Tex., Sept. 23—[Special.]—Considerable interest has been aroused here over the plans for extending the Nacogdoches & Southeastern Railroad which now runs to Pershing, 28 miles southeast of Nacogdoches, to a junction with the Santa Fe Railroad at some point on the Beaumont-Longview division between San Augustine and Center. A local committee composed of representatives of the three banks is now at work on the proposition.

Cooperage Company Would Operate Road.

Leslie, Ark., Sept. 22—[Special.]—It is reported here that the Export Cooperage Co. is endeavoring to lease the section of the Missouri and North Arkansas Railroad between Leslie and Kensett, a distance of 92 miles. In case the lease is secured it is understood that the company has agreed to put on sufficient service to carry all the freight and passengers between the two points in addition to caring for its own traffic.

Bonlee and Western Railroad Changes Hands.

One-half interest in the Bonlee and Western Railroad running from Bonlee to Bennett, N. C. has been purchased by Arthur Ross of Asheboro, N. C. The road runs through a good agricultural section and connects with the Southern Railway. Mr Ross has been elected president and general manager, succeeding John H. Dunlap.

GOOD ROADS AND STREETS

100 Miles of Roads Under Construction in Tulsa County.

A 100-mile highway improvement program adopted by Tulsa County, Okalahoma, as the result of a $1,750,000 bond issue voted Nov. 20, 1917, is now progressing under the supervision of Dan W. Patton, the county engineer. After the improvements have been completed, Tulsa county will be provided with an improved road in any direction from the city of Tulsa and connections with modern roads in Creek, Pawnee, Osage, Washington and nearby counties. The first contract was let in February, 1919, and called for a 6-mile concrete road from Tulsa to Sand Springs. Other contracts awarded during April and May of the same year brought the total construction provided for to 64 miles and at the close of 1920, contracts were awarded for 72 miles of highway. Eight miles were added during 1920, and the balance of the work and additional mileage is being arranged for this year through Federal aid.

The pavement consists of an 18-foot minimum surface, 8½ inches thick in the center and 6¼ inches at the sides, with a parabolic top and flat base of 1 : 2 : 3 mixture of cement, crushed limestone and Arkansas river sand, laid on a well prepared base. The crown of the roadway is from 30 to 32 feet wide.

Plans Approved for Additional Texas Highways.

Additional plans approved for highway construction in several Texas counties include the following: 11.41 miles of 18-foot gravel road on Highway No. 14, in Ellis County estimated to cost $230,993 approved by Chief Engineer, United States Bureau of Public Roads, Washington, D. C.; 12 miles of 15-foot gravel road on Middlebuster Highway (Highway No. 29) in Gonzales County estimated to cost $117,854, 8 miles 16-foot gravel road on Highway No. 22 in Comanche County estimated to cost $109,000, 35.4 miles of 16-foot gravel road on Meridian Highway in Webb County estimated to cost $399,967, and 33.9 miles of 16-foot caliche and gravel road on Highway No. 12 in Hidalgo County estimated to cost $237,570, all approved by the United States District Engineer at Fort Worth; 9.7 miles of 15-foot gravel road on Highway No. 35 in Polk County estimated to cost $266,000, approved by the State Highway Department, Austin.

Notes on Good Roads Construction.

A contract has been awarded to C. W. Burgess of Dallas, at $52,119 to construct 13 miles of gravel highway in Cass County, Texas. The surfacing will require 20,620 cubic yards of gravel, and the drainage structures to be built in connection with the road, will require 527 cubic yards of concrete and 38,939 pounds of reinforcing steel. Hess & Skinner of Dallas are the engineers.

Hard-surfaced highways will be constructed by McCurtain County, Oklahoma. The County Commissioners, Idabel, Okla., have sold a $350,000 bond issue and this amount has been supplemented by $350,000 Federal aid, making a total of $700,000 available for expenditure.

An expenditure of $2,000,000 is planned by the city of Monroe, La., for paving 15 to 20 miles of streets.

A contract amounting to $179,000 has been awarded to W. S. Pearson of Houston, Tex., by the Commissioners of Hidalgo County, Texas, for building the Caliche Road from the Brooks County line to Edinburg.

A $250,000 bond issue has been voted by Dawson Township of Tulsa County, Okla., for the construction of 9 miles of hard surfaced roads.

$5,000,000 for Roads and State Institutions

A report from Raleigh says that the State of North Carolina has obtained a loan of $5,000,000 at 5.59 per cent from bankers in New York according to a dispatch received by the Governor from B. R. Lacey, State Treasurer, who went to New York to arrange the financing. It is further stated that the money will be used for roads and also for State institutions and it is remarked that this is the first time within a year that the State has been able to borrow money at less than 6 per cent.

Industrial Growth of West Virginia Cities.

Preliminary reports of the 1920 census of manufactures of several West Virginia cities have been issued by the Census Bureau and show the following increases in the number of establishments, capital invested in manufacturing, and value of products:

	1919	1914	Per cent of increase
Charleston, W. Va.			
Number of establishments	106	89	19
Capital	$10,372,000	$3,227,000	221
Value of products	13,873,000	3,690,000	275
Clarksburg, W. Va.			
Number of establishments ...	86	43	100
Capital	$7,704,000	$[illegible]18,000	712
Value of products	11,882,000	1,010,000	338
Bluefield, W. Va.			
Number of establishments ..	21	24	—
Capital	$2,419,000	$1,130,000	114
Value of products	5,797,000	2,173,000	166
Fairmont, W. Va.			
Number of establishments	62	50	24
Capital	$8,213,000	$5,276,000	56
Value of products	8,278,000	4,384,000	88
Huntington, W. Va.			
Number of establishments	115	102	12
Capital	$20,338,000	$7,844,000	159
Value of products	37,707,000	11,400,000	230
Martinsburg, W. Va.			
Number of establishments ..	40	..37	—
Capital	$6,523,000	$2,630,000	148
Value of products	9,003,000	3,022,000	197
Morgantown, W. Va.			
Number of establishments ..	61	49	24
Capital	$4,321,000	$2,376,000	87
Value of products	4,643,000	2,338,000	98
Moundsville, W. Va.			
Number of establishments ..	50	27	85
Capital	$6,208,000	$2,530,000	145
Value of products	6,773,000	3,629,000	86
Parkersburg, W. Va.			
Number of establishments ...	73	93	—
Capital	$14,741,000	$ 5,741,000	156
Value of products	24,056,000	7,143,000	236
Wheeling, W. Va.			
Number of establishments ...	245	201	21
Capital	$35,756,000	$26,858,000	33
Value of products	72,927,000	27,879,000	161

Oklahoma City Club to Build $300,000 Structure.

Oklahoma City, Okla., Sept. 24—[Special.]—Plans have been prepared by Hawk & Parr, architects, for a $300,000 building to be erected for the Oklahoma Club here. It will be an eight-story structure, 100 by 50 feet, with the first two stories 100 by 100 feet, and constructed of reinforced concrete, brick and stone, with a roof of tile and composition. Electric passenger elevators will be installed. Bids will be asked about October 1. Edward Hooper is manager of the club.

Contract Awarded for $220,000 Building at Augusta.

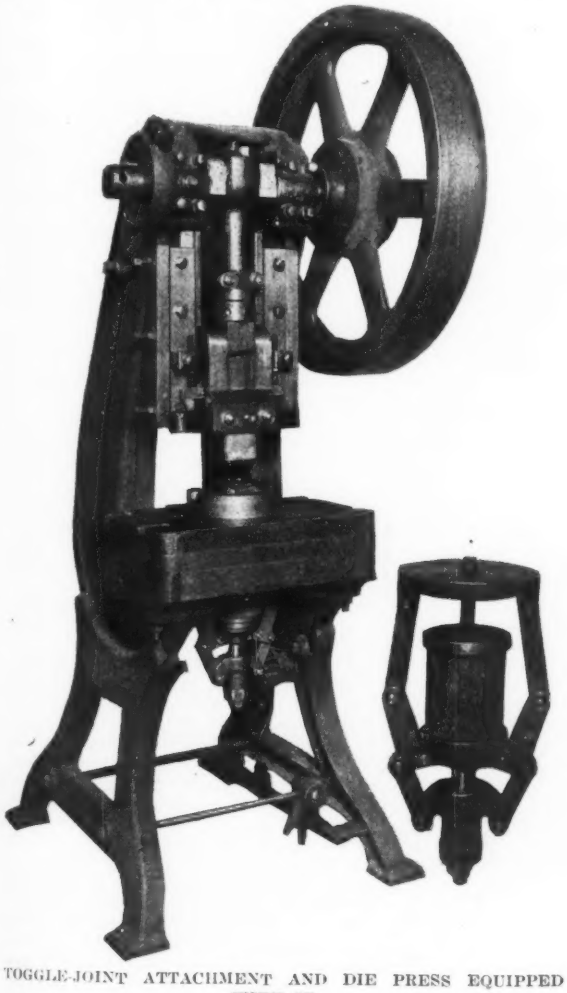
Augusta, Ga., October 1.—[Special.]—The North-Eastern Construction Co., 1111 Commercial Bank Bldg., Charlotte, has been awarded contract for the erection of the new building for the Young Men's Christian Association, here. It will cost approximately $220,000, be of brick and concrete construction with composition roof, and floors of cement, tile and composition. Plans were prepared by Seroggs & Ewing, architects, of this city.

MECHANICAL

New Attachment for Die Presses.

In the accompanying illustration is displayed a combination toggle joint spring pressure attachment which presents special advantages for users of combination dies, particularly when lithographed metal is to be handled, and also a die press equipped with one of these attachments.

This device, according to the manufacturers, the E. W. Bliss Company, Adams and Plymouth Streets, Brooklyn, N. Y., insures uniform drawing pressure on the blank during the entire draw, producing a more uniform edge than is



TOGGLE-JOINT ATTACHMENT AND DIE PRESS EQUIPPED WITH IT

ordinarily obtained with a spring pressure attachment. Moreover, it is observed that this uniform pressure increases efficiency by minimizing strain on the metal, reducing wrinkles, breakage, and wear on the dies. Besides, the application of the toggle motion, in addition to uniform pressure reduces the total rubber or spring compression materially. A further power saving is also said to be made by eliminating the accumulative spring pressure and the reduction or compression increases the life of the rubber or spring.

Reduced compression it is stated allows economical manufacture with combination dies of shells deeper than heretofore practical and certain work can be done with fewer operations. The attachment does not interfere with operation and dies can be removed as usual. No change in press equipment is needed for its use. It is made in four sizes.

$500,000 Bank and Office Building for High Point.

High Point, N. C., Sept. 26—[Special.]—Charles C. Hartmann, of Greensboro, N. C., has been selected as architect for the new bank and office building of the Commercial National Bank, which will cost approximately $500,000. It will be 50 by 115 feet, 10 stories high with basement, and contain 150 offices besides the quarters for the bank. Two passenger and one freight elevator will be installed. Work will be started shortly after the completion of plans and specifications.

Plans in Preparation for College Improvement.

Fayetteville, N. C., Sept. 24—[Special.]—Plans are being prepared for the erection of a number of buildings of frame, brick, stone and steel construction for the state college here. A large amount of new equipment for the laundry, ice plant, boiler room, and electrical departments will be installed. Willard G. Rogers, Charlotte, and Stiles S. Dixon, Fayettville, are the architects.

Building Activity in Tulsa Increasing.

Tulsa, Okla., October 1—[Special.]—Building permits are increasing steadily in this city. Three important projects are well under way in the business district. One is the new school building at Fourth and Cincinnati; another the $600,000 Atlas Life Insurance building; and work is progressing on the $300,000 Hunt project. During 24 days of last month building permits issued had a total valuation of approximately $250,000.

Commendations, Kicks and Comments

Doing a Great Work.

GEO. D. CRAIG, CRAIG BROTHERS, Spencer, Va.—You may renew my subscription for one year. Enclosed find check. I certainly enjoy reading the MANUFACTURERS RECORD. You are doing a great work, for the uplift of our country as well as humanity. May God continue to bless you in the future as in the past.

Information on National Welfare.

W. C. GAY, Coleman, Texas.—Appreciating your efforts and magazine and important articles so much I am enclosing a check for $7.50 which is intended for one year's subscription and $1.00 which I forgot to enclose.

You are putting out more important inside information than I have heretofore found in any one magazine pertaining to our national walfare .

Exponent of Sound Business.

EDWARD A. LEONARD, C. T. M., Port Reading, N. J.—Herewith please find my check for $2 to cover your special offer subscription for four months to the MANUFACTURERS RECORD.

It is indeed needless for me to say that I have noticed the salient features which make the MANUFACTURERS RECORD one of the most powerful exponents of sound financial business management, the life blood of American industries.

Upholding the Standard of America.

J. M. VAN HARLIGEN, Atlanta, Ga.—Enclosed you will find my check for $6.50 to renew my subscription for another year. I wish to take this opportunity to say that my office could hardly get along without the MANUFACTURERS RECORD, and to us it now seems part of our work to carefully read your editorials, which I always look forward to with much interest. I also wish to commend the noble manner in which you try to uphold the standards of America, and to assure you that it shall always be given a permanent place on our reading table.

Fearless for the Right.

W. W. BROWN, Sec. and Manager, Central Loan & Trust Company, Burlington, N. C.—I fully realize that the MANUFACTURERS RECORD is fighting the battles of the business interests of this country. If the other papers throughout the nation had displayed the same amount of backbone that the MANUFACTURERS RECORD displayed, this country would not have suffered as it has because of the deflation brought on by our Federal Reserve banks. In every instance where I have heard the MANUFACTURERS RECORD mentioned it has been spoken of in the highest terms, and so long as it continues to take the fearless stand it has in all matters pertaining to the public interest, we shall be very glad to continue our subscription.

Construction Department

EXPLANATORY.

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news value are published later from telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

DAILY BULLETIN.

The Daily Bulletin of the MANUFACTURERS RECORD is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is $20.00 per year.

Bridges, Culverts and Viaducts.

Ala., Marion—Perry County let contract to J. A. Wood to build reinforced concrete bridge over Rice Creek. (Lately noted.)

Ala., Tuscaloosa—State Highway Comsn., of Alabama, Montgomery, Ala., will build highway bridge over Warrior river between Tuscaloosa and Northport; two 186-ft., 142-ft. and 109-ft. steel spans, total length of bridge 633-ft.; bids until Oct. 19; J. A. L. Waddell, Consit. Engr., 35 Nassau St., New York. (See Machinery Wanted—Bridge Construction.)

Fla., De Land—State Road Dept., Tallahassee, Fla., will build bridges on State Road No. 3, Volusia County, DeLeon Springs north to Putnam county line; bids until Oct. 8; Chas. A. Browne, State Highway Engr., Tallahassee, Fla. (See Machinery Wanted—Bridge Construction.)

Fla., Fernandina—State Road Dept., Tallahassee, Fla., will build bridges on State Road No. 4, Project No. 32, Nassau County from Duval County line north through Callahan; bids until Oct. 7; Chas. A. Browne, State Highway Engr., Tallahassee. (See Machinery Wanted—Bridge Construction.)

Fla., Lake City—State Road Dept., Tallahassee, Fla., will build bridges and culverts located on State Roads No. 2; as follows: State Road No. 2, Federal Aid Project No. 33, Burnet's Lake to Gainesville; all reinforced concrete culverts and concrete bridges; Federal Aid Project No. 26, extending from Lake City north to Suwanee river; bids until Oct. 7; Chas. A. Browne, State Highway Engr., Tallahassee. (See Machinery Wanted—Bridge Construction.)

Fla., Lake City—State Road Dept., Tallahassee, Fla., will construct reinforced concrete culverts and concrete slab bridges; Federal Aid Project 11, 22, 23, and 24; 118,967 lbs. steel reinforcement; bids until Oct. 24; H. B. Phillips, Chrmn., Tallahassee, Fla. (See Machinery Wanted—Bridge Construction.)

Fla., Palatka—State Road Dept., Tallahassee, Fla., will build bridges; on State Road No. 3, Putnam County; F. A. Project No. 18, bids until Oct. 8; Chas. A. Browne, State Highway Engr., Tallahassee. (See Machinery Wanted—Bridge Construction.)

Ky., Frankfort—City will repair St. Clair St. bridge; will invite bids. Address Engr. Johnson.

Md., Baltimore—State Roads Comsn., 601 Garrett Bldg., will build $20,000 concrete bridge over Little Patuxent river on Washington boulevard to replace iron and wood structure which collapsed.

Md., Savage—State Roads Comsn. 601 Garrett Bldg., Baltimore, let contract to Luten Bridge Co., York, Pa., to build $20,000 bridge over Little Patuxent river on Baltimore and Washington Boulevard; 97 ft. concrete arch, 15-ft. rise.

Miss., Oxford—Lafayette County will build 165-ft. bridge across Buzzard's Roost slough on Wyatt levee in Beat 3; also 6 bridges on Mathis road; bids opened Oct. 4; W. M. Woodward, Clk.

Miss., Woodville—Wilkinson County will build steel bridge to connect Wilkinson and Adams county links of highway; cost $35,000. Address County Commrs.

Mo., Keytesville—State Highway Dept., Jefferson City, Mo., will construct 16 ft. and 20 ft. reinforced concrete slab span bridge on state road from Keytesville northward; 2 reinforced concrete abutments; Chariton County, State Aid Project 20.59; $3,266.50 and $2,912.20; bids until Oct. 13; A. W. Graham, State Highway Engr., Jefferson City; M. S. Hamick, Div. Engr., Macon, Mo. (See Machinery Wanted—Bridge Construction.)

Mo., Lamar—State Highway Dept., Jefferson City, Mo., will build 16-ft. reinforced concrete slab span bridge on State road from Golden City to Lamar; 2 concrete abutments; Barton County, State Aid Project; H. P. Moberly, Div. Engr., Springfield, Mo.

Mo., Memphis—State Highway Dept., Jefferson City, Mo., let contract to F. E. Botts, Independence, Mo., to build 18-ft. reinforced concrete slab span bridge, 2 reinforced concrete abutments on State road from Memphis eastward and westward; State Aid Project 20.51, Scotland County. Lately noted inviting bids. (See Road and Street Construction.)

Mo., Vienna—State Highway Dept., Jefferson City, Mo., will build 20-ft. reinforced concrete slab span bridge on State road from Hawkins store northward; 2 reinforced concrete abutments; Maries County, State Aid Project 20.99; bids opened Oct. 1; H. D. Griffith, Div. Engr., De Soto, Mo.

N. C., Hayesville—North Carolina State Highway Comsn., Dist. Office, Asheville, N. C., let contract to Moore Concrete Products Co., Anderson, N. C., to build bridges in Clay County; Project 548-A. (See Road and Street Construction.)

N. C., Marshall—North Carolina State Highway Comsn., Dist. Office, Asheville, N. C., let contract to O'Brien Construction Co., Balsam, N. C., at $64,682 to build bridges in Madison and Yancey counties; Project No. 557. (See Road and Street Construction.)

N. C., Monroe—Union County Road Comsn. let contract to J. E. McCain, Geo. McCain and D. S. Wilson, to build bridge over Twelve-Mile Creek and top-soiling Providence road.

N. C., Murphy—North Carolina State Highway Comsn., Dist. Office, Asheville, N. C., let contract to So. Dray Co., Asheville, N. C., at $20,974 to build bridges in Cherokee County; Project 534. (See Road and Street Construction.)

N. C., Robbinsville—North Carolina State Highway Comsn., Dist. Office, Asheville, N. C., let contract to C. M. Dicus, Mill Springs, N. C., at $17,144 to build bridges in Graham County; Project 545. (See Road and Street Construction.)

Okla., Muskogee—State Highway Dept., Oklahoma City, Okla., will build 4 bridges; cost $1,150,000; invites bids. (Lately noted.)

S. C., Newberry — Newberry County Highway Comsn. will let contract for steel and concrete bridge over Bush river.

Okla., Norman—Norman Canadian Bridge Co. let contract to Kansas City Bridge Co., Kansas City, Mo., at $29,987 to build five 150-ft. steel spans to replace wooden spans; owner will furnish floor and approach. (Lately noted.)

Tex., Austin—Travis County may vote on $1,250,000 bonds to rebuild and repair bridges, culverts and roads; Geo. S. Matthews, County Judge.

Tex., Crosbyton—Crosby County will build bridge across Blanco Canyon; voted $12,000 bonds. Address County Commrs.

Tex., Madisonville—Madison County let contract to Austin Bros. Bridge Co., Coombs St., Dallas, Tex., at $16,863.25 to construct 988 lin. ft. creosoted timber bridges; 150,000-ft. lumber; 6,500 lin. ft. piling. (Lately noted inviting bids.)

Tex., Port Arthur—City will enlarge draw bridge leading to Pleasure pier; widen 40-ft.; E. R. Thomas, City Engr.

Tex., San Augustine — San Augustine County let contract to Austin Bros. Bridge Co., Coombs St., Dallas, Tex., at $18,070.60 for construction of 100-ft. steel span bridge on 30-ft. reinforced concrete abutments over Attoyac Creek; W. A. French, County Engr.

Tex., Vernon—Peck & Hickernell will build toll bridge 4,000-ft. long and 12-ft. wide over Red river.

Va., Bristol—City of Bristol, Va. and City of Bristol, Tenn., let contract to Atlantic Bridge Co., Roanoke, Va., at $8,139 to build bridge over Beaver Creek on State St.; concrete and steel. (Lately noted inviting bids.)

Va., Norfolk—Dept. Public Works will reconstruct Campostella bridge; low bidder C. B. Gross Co., Norfolk, Va., at $14,312.20.

Va., Rocky Mount—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va., let contract to J. E. Lane, Altavista, Va., at $6,035 to build steel bridge over Chestnut Creek, Franklin County, Va. Project No. 50. (Supersedes recent item.)

Va., Rocky Mount—Franklin County will build 2 iron bridges over Blackwater and Town Creeks. Address County Commrs.

W. Va., Morgantown—Monongalia County will build bridge over Cheat river at Ice's Ferry; two spans, 250-ft. long and third span 150-ft. long; bids in November; R. P. Davis, Div. Bridge Engr.

Canning and Packing Plants.

Fla., Jacksonville—Nonnenbacher & Co., J. C. Nonnenbacher, Prest., plans establishing

cannery for crab meat. (Lately noted Chamber of Commerce interested.)

Fla., Titusville—Wallace M. Quinn, Crisfield, Md., plans establishing cannery for crab meat.

Ga., Athens—Farm Bureau, T. W. Morton, Chrmn., interested in establishing a pimento cannery.

Ga., Moultrie—Southeastern Packing Co., Savannah, capital $2,000 000, incptd, with A. E. Davis, Prest., Mobile, Ala.; W. W. Love, V.-P., Treas. and Gen. Mgr., Beaufort, S. C; have amalgamated independent meat packing plants as follows: Davis Packing Co., Mobile; Chipley Packing Co., Chipley, Fla.; Waycross Packing Co., Waycross, Ga.; Carolina Packing Co., Beaufort, S. C.; Orangeburg, S. C., and Wilmington, N. C.; combined daily killing capacity of units will be 4,000 to 5,000 hogs and 1,000 cattle.

La., Buras—A. Buras and L. Cazezu, purchased site; will establish shrimp and oyster factory, and ice plant. (See Ice and Cold Storage Plants.)

Mo., Sedalia—Swift & Co., G. H. Trader, Local Mgr., let contract to Collins Bros., Rialto Bldg., Kansas City, Mo., to construct 2-story 200x100 ft. reinforced concrete brick and steel packing plant. (Lately noted.)

Okla., Ada—Chamber of Commerce interested in establishing pickling plant.

Tex., Whitehouse—City contemplates erecting cannery. Address The Mayor.

Clayworking Plants.

La., Monroe—Pottery, etc.—McNichol Pottery & Crockery Co., J. M. Goff, Representative, Memphis, Tenn., contemplates establishing plant, costing several hundred thousand dollars; considering establishing large lines from Monroe to Camden, Ark.

Coal Mines and Coke Ovens.

Ky., Pineville—Hance Coal Co., capital $200,000, incptd. by T. J., G. M. and Robert Asher.

Ky., Williamsburg—Wofford Coal Co., incptd. by J. W. Davis, William Crole and A. P. Wallace.

Md., Barton—Maryland Big Vein Coal Co., capital $100,000, incptd. by John C. Brydon, Somerset, Pa.; Thos. B. and Jos. E. Davis, both Fairmont, W. Va.

Md., Cumberland—Calvert Coal Co., 16 Water St, capital $25,000, incptd. by Abraham L. Light, James C. Shirk and John B. Robinson.

Va., Big Stone Gap—Black Creek Coal Co., capital $10,000, incptd. with R. Tate Irvine, Prest.; J. H. Mathews, Secy.

Va., Tacoma—Heaton Coal Co., capital $50,000, incptd. with L. L. Heaton, Prest., Tacoma, Va.; J. R. Simmonds, Secy., Johnson City, Tenn.

West Virginia—Canyon Coal & Coke Co., Uniontown, Pa., increased capital from $500,000 to $750,000.

W. Va., Dorfee—Kanawha White Ash Collieries Co., E. M. Burns, Prest., Ebensburg, Pa., will develop 436 acres coal land, present daily output 400 tons, working on development; install mchry. (See Machinery Wanted—Mining Machinery.)

W. Va., Wellsburg—Brooke County Coal & Coke Co., capital $430,000, incp'd. by R. L. Ramsey, W. S. Wilkin, both Wellsburg; C. M. Warden, Beech Bottom, W. Va.

Cotton Compresses and Gins.

Miss., Tupelo—Lee County Gin Co., capital $25,000, incptd. by D. W. Robbins and R. G. Strain.

Tex., Paducah—Hutchinson Gin Co, organized with G. A. Simmons, Prest.; O. D. Hutchinson, V.-P.; R. R. Gilliland, Secy.-Treas.-Mgr.; all Quanah, Tex.; has established plant with daily capacity of 90 bales cotton. (Lately noted under Quanah, Tex., incptd., capital $36,000.)

Cottonseed-Oil Mills.

Tenn., Brownsville—Brownsville Cotton Oil Co., R. N. Bond, Mgr., will rebuild hull house recently burned at loss of $20,000.

Drainage Systems.

Fla., Fort Pierce—Indian River Farms Drainage Dist. Supvs. plans $600,000 bond issue to complete drainage project.

Fla., Valparaiso—City Comsn., A. P. Kastler, City Clk., will issue $20,000 electric light bonds.

La., New Iberia—Petite Anse Coteau Drainage Dist., A. L. Babineaux, Prest., let contract to A. V. Allain, Jeanerette, La., to dredge canal and clean out number of drainage ditches in Seventh and Eight Wards; sold $70,000 bonds. (Previously noted.)

Mo., Cape Girardeau — Little River Drainage Dist., Board of Supvrs. let contract to Walb Construction Co., LaGrange, Ind., to construct 1,640,000 cu. yds. earth excavation. (Bids lately noted.)

Mo., Gentry—Middle Fork Drainage Dist. Supvrs., Walter Gladstone, Secy., will construct main ditch, 250,000 cu. yds.; bids until Oct. 13; Clark E. Jacoby Engineering Co., Shukert Bldg., Kansas City, Mo. (See Machinery Wanted—Ditch Construction.)

Tenn., Somerville—Loosahatchie River Drainage Dist., Directors of Fayette and Shelby Counties (previously noted to construct drainage system, 2,447,800 cu. yds. excavation) sold $315,000 bonds.

Electric Plants.

Ark., Piggott—City contemplates installing lighting and water systems. Address The Mayor.

Fla., Fort Pierce—City will construct addition to present plant; install 400-H.P. oil-burning Deisel engine, 350 K. V. A. generator, and 500-gal. service pump; increase plant capacity to 450 K.W.; total cost $55,000. Address The Mayor.

Ga., Cedartown—City, H. M. Hall, Mayor, will extend light, water and sewer systems; grade streets; improve drainage, etc.; plans voting on $160,000 bonds.

Ky., Cornishville — Cornishville Lighting Co., incptd. by S. H. Gardner, Bishop Wash and W. Gibson. (Lately noted Bishop Wash and others organizing company.)

La., Crowley—City, J. O. Herpin, Mgr., will install power plant equipment, consisting of crude-oil engine, oil-engine type alternator, engine-type exciter and switchboard; bids until Oct. 17. (Lately noted.)

Mo., Salisbury—City let contract to General Electric Co., Schenectady, N. Y., at $10,098, to furnish and install engine dynamo at electric light plant; contemplates extending line to Prairie Hill. Address The Mayor.

N. C., Hendersonville—Blue Ridge Power Co., O. A. Meyer, Gen. Mgr., has been granted franchise to furnish electric power to city. (Lately noted.)

N. C., Wingate—Town will issue $10,000 electric light bonds; A. C. Small, Clk.

Okla., Billings—City let contract to construct electric high line from Oklahoma City to Billings. Address The Mayor.

Okla., Crescent—City will install electric light and water system; voted $60,000 bonds. Address The Mayor. (Lately noted.)

Okla., Sayre—City, W. E. Simmonds, Clk., will extend electric light and power plant; install 150-H. P. oil engine direct connected to 125 K. V. A. 2,300-volt, 3-phase, 60-cycle generator, with foundation and accessories complete; 100-H. P. oil engine direct connected to 75 K. V. A., 2,300-volt, 3-phase, 60-cycle generator, with foundation and accessories complete; 6-panel switchboard and power wiring; remodel and repair power house and oil reservoir, etc.; bids until Oct. 25; V. V. Long & Co., Consit.-Engrs., 1300 Colcord Bldg., Oklahoma City. Lately noted. (See Machinery Wanted — Electric Plant Equipment.)

Okla., Wilson—City will extend lighting system; plans voting on $70,000 bonds. Address The Mayor.

Tex., Cameron—City will install electric light, water and sewage disposal plants; cost $250,000; plans voting bonds; Engineering Service Co., Consit. Engr., Sumpter Bldg., Dallas, Tex.

Tex., Corpus Christi—Gulf Coast Power Co., capital $100,000, incptd. by R. W. Morrison, Marshall Hicks and C. M. Dickson; all San Antonio.

Flour, Feed and Meal Mills.

Ark., Hoxie—Arkansas Mill & Grain Co., C. C. Cherry, V.-P. and Mgr., has building; contemplates installing corn sheller and flour mill machinery; Henry Smidt, Constr. Engr. (Lately noted under Walnut Ridge, Ark.)

Tex., San Elizario—Giron Milling Co., incptd. by Julian Alarcon, Jose Madrid.

Foundry and Machine Plants.

Md., Baltimore—Radiators—Curran Motor Radiator Co., 1702 Light St., increased capital from $50,000 to $500,000.

Mo., St. Louis—Stoves, etc.—Joseph Forshaw Stove & Heating Supply Co. purchased 52x100 ft. site, will erect 6-story building, total expenditure about $200,000.

Gas and Oil Enterprises.

Ala., Mobile—Mobile Gas Co., R. I. Speer, Gen. Mgr., let contract to improve plant and extend mains. (Lately noted contemplated.)

Ala., Montgomery—T. C. Oil Corp., capital $200,000, incptd. by T. C. Hadley, Montgomery; R. A. Cooper and W. A. McSwain; both Columbia, S. C.

Ark., Charleston—Barna Petroleum Co., incptd. by Joseph Barna, F. S. Monahan.

Ark., Hope—Chamber of Commerce interested in establishing refinery.

Ark., Hot Springs—Refining—Hot Spring Refining Co., capital $15,000, incptd. by Wm. W. Little, Hot Springs; S. A. Lane and J. Marion Sims; both Little Rock, Ark.

Ark., Pine Bluff—Camden Oil & Refining Corp., H. M. Jones, Prest., Camden, Ark., plans constructing $30,000 refinery with 500-bbls. daily capacity.

Ky., Marion—Pinnacle Leasing & Development Co., increased capital from $35,000 to $50,000.

Ky., Owensboro—Kentucky Public Service Co., Frank Box, Engr. and Local Mgr., plans expending from $10,000 to $15,000 to improve and extend system; contemplates installing new water gas set, costing $30,000.

La., New Orleans—New Orleans Gas Co., A. E. Merchant, Supt., is expending $260,000 to extend plant; install generating set at central plant; lay 27,000 ft. 12-in. mains in St. Charles Ave.

N. C., Asheville—Asheville Power & Light Co., W. H. Plummer, Gen. Mgr., will improve gas producing plant.

Okla., Ardmore—Magnolia Petroleum Co., Dallas, Tex., will erect 5-unit casinghead gasoline plant; main building will contain four 510-H. P. and one 125-H. P. engines; five 110-H. P. compressors; an auxiliary building will contain auxiliary engines, dynamo, air pump, etc.; plant's daily capacity 1,500,000 cu. ft.; J. A. Nicholson, Healdton, Okla., in charge of construction.

Okla., Okemah—City granted franchise to E. V. Baker, C. C. Walker and J. R. Barry, to furnish gas to city. (Lately noted voted bonds.)

Okla., Tulsa—Refining—El Dorado Oil Refining Co., L. F. Severson, 828 Mayo Bldg., has building; will install $200,000 machinery; daily capacity 2,000 bbls. oil; lay 5 mi. 4-in. pipes; will commence to buy supplemental material Dec. 1. Lately noted incptd. capital $500,000. (See Machinery Wanted—Refinery Supplies.)

Tex., Gainesville—Condensing Plant—Lone Star Gas Co., Dallas, Tex., will expend $80,000 to construct gasoline condensing refinery; carload of gasoline extracted daily from natural gas. (Lately noted.)

Tex., Groesbeck—Humble Oil & Refining Co., Houston, Tex., leased 315 acres for tank farm; will erect 56 tanks, expending $1,000,000.

Tex., Mexia—Humble Oil & Refining Co., Houston, Tex., plans improving oil field; construct ten 55,000-bbl. oil tanks and warehouse; establish telephone line to Mexia, and telegraph lines direct; contemplates laying pipe line from Mexia to tank farm at Webster.

Tex., Texas City—Swiftsure Co., Mills Bennett Prest., Houston, plans constructing eight 55,000-bbl. tanks; 2 completed.

Va., Alexandria—City will improve gas plant; will issue $180,000 bonds. Address The Mayor.

Hydro-Electric Plants.

Ark., Little Rock—Dixie Power Co., Title Guaranty Bldg., St. Louis, Mo., applied for permit from Federal Power Comsn., Washington, D. C., to construct water-power development on Buffalo river near its junction with Panther Creek; 19,000 H. P.

N. C., Pilot Mountain—Town will vote Oct. 25 on $50,000 bonds for developing water-power on Ararat river and installing electric lighting plant. Address The Mayor.

N. C., Westfield—R. T. Joyce, Greensboro, N. C., has power house and 8-ft. dam; install machinery; plans constructing 100-H. P. transmission line. (See Machinery Wanted—Wheel; Dynamo; Motor; Wire.)

Tenn., Rogersville—Rogersville Electric Co. has under construction enlargement and repairing of dam and other necessary improvements.

Va., Clarksville—Roanoke River Development Co., 317 Mutual Bldg., Richmond, Va., has been granted permit by Federal Power Comsn., Washington, D. C., for hydro-electric development on Roanoke river near Clarksville; plans consist of 50-ft. dam across Roanoke river, power house to develop 10,000 primary H. P. and secondary development 50,000 H. P. (Supersedes recent item.)

W. Va., Fayetteville—C. B. Hawley, 450 Munsey Bldg., Washington, D. C., applied for permit from Federal Power Comsn., Washington, D. C., to construct water-power development on Sandstone Falls, New River; 4,500 H. P.

Ice and Cold-Storage Plants.

Ark., Marianna—City, C. J. Gregory, Mayor contemplates building municipal ice plant, in connection with other public utilities. (See Machinery Wanted—Ice Plant.)

Ga., Monroe—City will erect and equip municipal ice plant with view to building packing house, curing plant and creamery; voted $16,000 bonds. Address Mayor Roberts.

Fla., Sarasota—Sarasota Ice & Cold Storage Co., H. W. Lind, Prest., Bradentown, Fla., will expend from $15,000 to $20,000 on plant improvements; install mchy. to double capacity. Lately noted. (See Machinery Wanted—Ice Making Machinery.)

Fla., Valparaiso—City Comsn., A. P. Kastler, City Clk. will issue $15,000 bonds for ice plant construction.

Ky., Earlington—Earlington Ice Co., capital $60,000, incptd. by W. E. Rash, Maurice K. Gordon and Charles W. Francis.

Ky., Louisville—Liberty Ice & Cold Storage Co., capital $100,000, incptd. by Fred W. Krauss, H. E. Jones and H. T. Nichols.

La., Buras—A. Buras and L. Cazezu purchased site, will erect $30,000 ice plant, also shrimp and oyster factory.

Mo., St. Louis—Polar Wave & Fuel Co., J. C. Muckermann, V.-P., purchased 240-ft. front site, will erect $400,000 ice mfg. plant, install mchy., storage house, etc.

N. C., Mount Airy—J. S. Bray purchased 15-ton daily capacity ice plant; plans later to install cold storage addition.

N. C., New Bern — City contemplates establishing ice plant. Address The Mayor.

N. C., Thomasville—J. W. Boyles will expend $20,000 on plant improvements, erect 15-ton daily capacity ice plant, electrical power; mchy. purchased.

Okla., Watonga—Consolidated Ice & Coal Co., incptd. with $100,000 capital; establish 25-ton daily capacity plant.

Tenn., Clarksville—Clarksville Ice & Coal Co., re-organized with M. L. Cross, Prest.; James Whitworth, V. P. and Gen. Mgr.; W. T. Atkinson, Secy.; C. W. Bailey, Treas.; will erect $20,000 fireproof building; install 60-ton Arctic-Pownall raw water ice plant; mchy. purchased.

Tex., Seguin—Seguin Ice Co., capital $40,000, incptd. with Max Starcke, Secy.

Irrigation Systems.

Tex., Francitas—Midcoast Development Co., capital $10,000, incptd. by C. S. Zerby, Mason Hirsh.

Land Developments.

Ala., Anniston—City will vote Oct. 31 on $50,000 park bonds. Address The Mayor. (Lately noted.)

Ga., Laurens County—Hillandale Nursery Co., organizing with A. L. and Geo. B. Davis, and E. P. Lugand; all Dublin, Ga.; plans developing 180-acre site, 7½ mi. west of Dublin, for nursery.

Ky., Louisville—Board of Park Commrs. purchased site will develop for park.

Md., Baltimore—Thompson Development Co., 806 Lexington Bldg., capital $10,000, incptd. by Jas. Cary, Mabel B. and J. Ernest Thompson.

Md., Bay Ridge, P. O. Baltimore—Bay Ridge Realty Corp., capital $300,000, incptd. with Thos. T. Boswell, Prest., Munsey Bldg.; Thos. R. Bond, V.-P.; Edw. T. Boswell, Secy.-Treas., Munsey Bldg.; all Baltimore. (Lately noted.)

Md., Sandy Springs—Commonwealth Farming & Agricultural Assn., capital $10,000, incptd. by Jno. R. Bates, Junius H. Smith, and Ernest Osborne.

Miss., Hattiesburg—City Commrs. contemplates converting water-works site into park; Robert E. Lee, Archt.

Mo., Kansas City—City, Mayor Cowgill will improve Swope Park; vote Nov. 22 on $900,000 bonds. (Lately noted contemplated.)

N. C., Shelby—Wm. Lineberger contemplates developing Spake Farm on Cleveland Springs Road into suburban section.

Okla., Wilson—City will develop park; plans voting on $10,000 bonds. Address The Mayor.

S. C., Greenville—City, Mayor Harvley contemplates purchasing Graceland cemetery; 8,000 lots available.

Tex., Three Rivers—Charles R. Tips plans developing section for city of 25,000 inhabitants; Geo. E. Kessler, Landscape Archt., Kansas City, Mo.

Lumber Manufacturing.

Fla., Riverview—August Amont will erect saw mill, install planer, etc.

Fla., Tampa—Wilkins-Lewis Lumber Co. incptd. by V. D. S. Wilkins, and E. T. Lewis.

N. C., Charlotte—Superior Lumber Sales Co., capital $25,000, incptd. by Thomas R. Kear and W. S. Beam, both Charlotte, N. C.; Joseph Rittiner, Gable, S. C.

S. C., Charleston—Santee Logging Corp. chartered by H. L. Erckmann and C. P. Cuthbert, both Charleston; J. H. Jones, Summerville, S. C.

Tenn., Jacksboro—Elk Lumber Co., capital $15,000, incptd. by J. H. Barker, Lee Faulkner and Charles McCall.

Tex., Fort Worth—Keith Lumber Co., capital $24,000, incptd. by J. F. Keith, G. D. Anderson and B. I. Sparks.

Metal-Working Plants.

Md. Baltimore—Self-Locking Nut—Chapman Self-Locking Nut Co., 721 Equitable Bldg., incptd. with $1,000,000 capital; plans to mfre. self-locking nut; H. D. Chapman, Inventor, 2029 Clifton Ave.

Ky., Louisville—Moving Picture Machinery—New Ulmer Circuit Breaker Co., capital $20,000, incptd. by Henry B. Strube, John E. Moeller and Jacob Ulmer.

Md., Baltimore—Gasoline Measures—Avon Specialties Co., 44 Market Place, capital $150,000, organized with Wm. L. Thaxton, Prest.; Clarence A. Creidler, Secy.-Mgr.; successors to Avon Specialties Mfg. Co.; has mchy. to mfre. U. C. what U get Visible gasoline measures daily output 20.

Mo., Kansas City — Enameling — Ferro Enamel Supply Co., R. A. Weaver, Prest., Cleveland, O., contemplates establishing enameling plant.

Tenn., Memphis—Wire Fencing—Peerless Wire Fence Co., Adrian, Mich., will establish branch plant to mfre. woven wire fence; purchased brick building from Bosworth Bag Co., install 7 automatic looms to mfre. various patterns of wire fence and 2 looms for making ornamental and lawn fencing; daily output of plant about 4 carloads or 21,000 rods.

S. C., Charleston—Geometric Square—J. H. Roberts contemplates organizing company and later to erect plant for mfre. of geometric square.

Va., Norfolk—Kitchen Supplies—Matthews & Thumm, capital $15,000, incptd. with E. R. Matthews, Prest.; J. Henry Thumm, Secy.; mfre. kitchen and household supplies.

Mining.

Virginia. — Mica — Vicama Mica Co., 3 Hamilton Row, Hagerstown, Md. (previously

noted incptd.) has mines in Virginia and North Carolina; plans installing quarrying equipment and pulverizing mills. (See Machinery Wanted—Quarrying Equipment; Pulverizing Mills.)

Miscellaneous Construction.

Fla., Pensacola—Wharf—J. W. Eley and others will construct 600 ft. wharf foot of 15th Ave.; plans to establish retort plant.

Fla., Live Oak—Swimming Pool—City, W. H. Lyle, Chrmn. Water Works Committee, purchased site will build municipal swimming pool, reservoir, etc. (See Water Works.)

Fla., Pensacola — Wharf — City contemplates improvement of wharf; George Henrichs, Street Commr.

Fla., Tallahassee — Canal — State Road Dept., H. B. Philips, Chrmn., will construct canals along proposed fill of Choctawhatchee River Bridge approach; 100,000 cu. yds. excavation; bids until Oct. 8; Chas. A. Browne, Highway Engr. (See Machinery Wanted—Canal Construction.)

Fla., Valparaiso—Wharf, Docks, etc.—City Comsn., A. P. Kastler, Clk. (previously noted to erect wharf, docks and warehouse on Sunset Bay) will issue $20,000 bonds.

La., New Orleans — Levee — U. S. Engr. Office, Customhouse, 140 Decatur St., will construct about 13,000 cu. yds. earthwork in Lake Borgne Levee Dist.; bids until Oct. 5.

N. C., Raleigh—Memorial Tower.—Alumni Memorial Committee of State College, C. L. Mann, Chrmn., let contract to Sargent & Co., Mount Airy, N. C. at $13,900 to construct stone work at lower part of hero memorial tower on college campus; entire cost tower, clock and chimes, about $80,000. cost tower, clock and chimes, about $80,000; W. H. Deacy, Archt.; 113 47th St. New York City.

S. C., Charleston—Canal—Federal Power Comsn., Washington, D. C., issued preliminary permit to Columbia Railway Gas & Electric Co., Columbia, S. C., for license for a navigable canal of 24 mi. long, not less than 10 ft. deep, to divert water from Santee river to upper reaches of Cooper river; later proposes to build hydro-electric plant at southern terminus of canal.

Tex., Corpus Christi—Harbor Improvements—City and Nueces County Commrs. has following project under consideration, dredging 21 mi. channel from jetties at Port Aransas to Corpus Christi; expending $1,000,000 in construction of adequate wharves and terminals; $2,500,000 available for protection of harbor by means of seawalls, breakwaters, etc., by State Legislature; equal expenditure to be made by Government to dredge channel. (Supersedes recent item.)

Tex., Dallas—Levee—City of Dallas and Dallas County Improvement Dist. No. 10 will construct 11½ mi. levee to reclaim 3000 acres overflow lands and protect and additional 2000 acres city property from overflow, 6,000,000 cu. yds. earth; build pumping plants, bridges, roads, etc.; vote about Feb. 1 on $5,000,000 bonds; E. N. Noyes, Dist. Engr., 311 Deere Bldg., Dallas; Alvord & Burdick, Consit. Engr., Chicago, Ill.

Va., Norfolk — Harbor Improvements — Hampton Roads Port Comsn., N. D. Maher, Chrmn. contemplate developing harbor; propose bond issue; C. M. Ashburner, City Mgr.

Miscellaneous Enterprises.

Fla., DeLand—Electrical Engineering, etc.—DeLand Electro Plating & Art Metal Works, incptd. with Percival J. Thompson, Prest.; C. A. J. Springthorpe, Secy.

Fla., Marianna—Publishing, etc.—Marianna Publishing Co., incptd. with Lillian Kilpatrick, Prest.; Winifred Killpatrick, Secy.; A. A. Roberts, Mgr.; has fireproof building; will install $4000 printing press. (See Machinery Wanted—Paper Stock.)

Fla., Tampa — Laundry — White Star Laundry, H. T. Richards, Propr., will erect 3-story 165-177-ft. building, reinforced concrete construction; install laundry mchy.

Fla., Winter Park.—Fire Equipment—City voted $25,000 bonds for fire apparatus and equipment. Address The Mayor.

Ga., Atlanta — Publishing — Southern Republican Publishing Co., capital $25,000, incptd. by D. K. Roberts, W. O. Ballard and John Randolph.

Ga., Griffin—Hardware—Griffin Hardware Co., C. B. Thomas, Prest., increased capital from $30,000 to $100,000.

Ky., Harlan — Taxicab — Arrow Taxicab Co. incptd. by C. R. Shannon and C. M. Cecil.

Ky., Louisville—Building Materials—Louisville Pro-State Building Co., capital $10,000, incptd. by Raymond G. Clark, Carl R. Webb and Frank Shouse.

Ky., Louisville—Printing—Standard Printing Co., D. B. G. Rose, Prest., will erect 4 story and basement, 67-ft.-in.x94-ft. building, concrete construction, brick enclosing walls; bids until Oct 18; will move mchy. from present building to new plant; Arthur Loomis, Archt., 51 Todd Bldg. (Previously noted.)

La., Empire—Construction—Empire Canal & Fisheries Co. incptd. with John Arnolie, Prest.; R. S. Lovey, V.-P.; Joseph Hingle, Secy.-Treas.

La., Monroe—Barge Line—McNichol Pottery & Crockery Co., Memphis, Tenn., contemplate establishing barge line between Monroe and Camden, Ark. (See Clayworking Plants.)

Md., Baltimore—Dyeing, Bleaching, etc.—Meadowbrook Dye Works, Andrew Armstrong, Prest.-Mgr., 523 Equitable Bldg., purchased old coliseum building, fireproof; install bleaching and dyeing mchy., some purchased. (See Machinery Wanted—Bleaching and Dyeing Machinery.)

Md., Baltimore — Amusements — Govans Amusement Co., 16 E. Lexington St., capital $100,000, incptd. by Walter D. Hackmeu, R. Lee Chambers and Jos. W. Starlings.

Md., Baltimore — Dyeing — Craven's Dye Works, 212 Garrison Lane, capital $25,000, incptd. by George H. and Howard L. Craven.

Md., Baltimore—Steamship Lines—Clyde-Mallory Lines, W. W. Tingle, Mgr., 202 Carroll Bldg. leased Pier 6 Pratt St. will remodel; operate coastal lines between Baltimore and New York, temporary docking place will be Key Highway and Henry St. (Lately noted.)

Md., Hagerstown — Laundry — Hagerstown Laundry, 137 W. Franklin St., capital $50,000, incptd. by Joe Brenner, Henry A. Bester, Jr., and Daniel E. Downin.

Md., Waldorf — Construction — Concrete Homes Co., capital $60,000, incptd. by Wm. Deane Ham, Burton M. Potter and A. G. L. Toombs.

Mo., Independence—Swimming Pool—Dr. Frank Criley and others will construct natatorium with 65x150-ft. pool.

Mo., Kansas City—Laundry—Community Laundry, care of J. F. Killpatrick, 15th and Vine St., will erect story and basement 65x127-ft. laundry building; C. E. Shepard, 508 Reliance Bldg.

Mo., St Louis—Film Exchange—Fox Film Corp. will erect film exchange building; has leased site.

N. C., Asheville—Fire Alarm System—City Commrs. contemplate repairing fire alarm system.

N. C., Gastonia—Contracting—McAllister, Quinn & Co., capital $100,000, incptd. by E. L. Quinn, J. E. and J. M. McAllister.

Okla., Chickasha—Building—Globe Building Co, capital $10,000, incptd. by A. H. Morrown, B. E. and E. White.

Okla., Tulsa—Printing—Oklahoma Press., 308 E. 2nd St. (lately noted incp'd., capital $15 000), organized with Mather M. Eakes, Prest.; E. G. Aston, Secy.-Treas.; D. H. Aston, Mgr.; will install $10,000 printing equipment.

Okla., Tulsa—Cleaning—Crescent Cleaning Works, W. V. Eddy, Prest., will erect 1-story brick building.

Okla., Wilson—Fire Fighting Equipment—City plans voting on $7500 bonds for fire fighting equipment and main extensions. Address The Mayor.

S. C., Greenville—Potato Curing—Chamber of Commerce interested in establishing sweet potato curing plant.

S. C., Kingstree—Potato Curing—T. E. Arrowsmith has under construction 30,000 bu. potato curing house.

S. C., Manning—Potato Curing—Manning Curing House, incptd. with W. G. King, Prest.; A. L. Luce, Secy.-Treas.

Tenn., Knoxville — Incinerators — City Commrs., contemplate constructing incinerator; city authorized $75,000 bond issue.

Tenn., Memphis—Contracting and Rewinding.—Liberty Electric & Mfg. Co., 95 N. 3rd St., will erect 1-story brick building, steel sash, composition roof; cost about $11,500; mchy. not decided; Regan & Weller, Archts., Bank of Commerce Bldg.

Tex., Dallas—Incinerators—City Commrs. let contract to Superior Garbage Incinerator Co. at $154,387 to construct 4 garbage incinerators, each incinerator having traveling hoist, and set of 10-ton scales. (Bids lately noted.)

Tex., Houston—Abattoir—Houston Packing Co. let contract to H. N. Jones Contracting Co. to erect 4-story abattoir, approximate cost $75,000.

Va., Norfolk—Plumbers Supplies, etc.—Atlantic Heating Corp., capital $15,000, incptd. with D. C. Whitehurst, Prest.; M. P. Hooker, Secy.

W. Va., Bluefield—Printing—Daily Telegraph Printing Co. increased capital from $50,000 to $100,000.

W. Va., Huntington—Electric-Plating—C. A. Werble, Charleston, W. Va., contemplates establishing electric-plating plant.

W. Va., Wheeling—Advertising—Wheeling Advertising Corp., capital $50,000, incptd. by R. Robinson, John J. Coniff and Austin V. Wood.

Miscellaneous Factories.

Ala., Carbon Hill—Coca-Cola—Coca-Cola Bottling Co., will erect factory building, store house and office.

Ala., Mobile—Drugs—Southern Drug Co., incptd. with R. P. Campbell, Prest.; Watson Fairley, Secy.-Treas.

D. C., Langdon Sta., Washington—Yeast—Fleischman Yeast Co., will remodel, and erect additions to plant; Milburn, Heister & Co., Archts., Union Savings Bank Bldg., Washington.

D. C., Washington — Bakeries — Barker Bakeries Co., 726 7th St., will remodel plant;

Milburn Heister & Co., Archts., Union Savings Bank Bldg.

D. C., Washington—Trousers—National Pants Co., 408 First St., S. E., let contract to L. H. Collegeman Co., at $20,000 to construct 105x46 ft. semi steel building and install machinery to mfre pants; slag roof; maple floors; install $1,600 heating plant; $500 lighting plant; $700 elevators; Geo. T. Santmeyers, Archt.

Fla., Canal Point—Sugar—Florida Sugar & Food Products Co. will erect 200x100 ft. steel structure; install machinery to mfre. sugar; daily capacity 400 tons cane; N. K. Williams, Constr. Engr., S. W. Bollinger, Pittsburgh, Pa., will superintend construction. (Previously noted.)

Fla., Fort Myers—Baking—Up-to-Date Baking Co., Jacksonville, leased space in Tonneillier building; will establish bakery; install machinery.

Fla., Jacksonville—Collapsible Boxes—American Collapsible Box Co., A. Van den Room, Mgr., High Point, N. C., will erect plant to mfre. corrugated board folding boxes; purchased $75,000 machinery.

Fla., Live Oak—Tonic Mixture—Suwannee Products Co., organized with L. S. Harvard, Prest.; C. H. Tedder, Secy.-Treas.-Mgr.; leased factory building; bids until Nov. 1 to erect building; purchased machinery; will install to mfre. mineral tonic mixture for live stock. (Lately noted incptd., capital $25,000.)

Fla., Palmetto—Shoes, etc.—Palmetto Shoe & Clothing Co., capital $30,000, incptd. with Asa Lamb, Prest.; H. K. Tallant, Secy.-Treas.

Fla., Pensacola—Ice Cream, etc.—Hamilton Russell, capital $50,000, incptd. with Hamilton Russell, Prest.; J. H. Clark, V.-P.; R. C. Russell, Secy.-Treas.

Fla., Pensacola — Clothing — Southern Mill Co., Jno. L. Harding, Representative, Milwaukee, Wis., contemplates establishing plant to mfre. children's clothing, etc.

Fla., Sarasota—Bakery—H. Stark let contract to C. J. Knighton to erect building for bakery.

Ga., Columbus — Creamery — Chamber of Commerce, H. Laud, Chrmn., interested in establishing creamery.

Ga., Macon—Jewelry—Williams Jewelry Co., capital $15,000, incptd. by J. P., R. H. and F. H. Williams.

Ga., Macon—Clothing, etc.—Georgia Wholesale & Mfg. Co., capital $50,000, incptd. by J. E., F. H. and W. S. Lee, Jr.

Ky., Lexington—Tobacco—Lexington Leaf Tobacco Co., capital $80,000, incptd. by E. C. and E. C. Franke, Jr., and G. O. Tuck.

Ky., Louisville—Paint Remover—Universal Paint Removing Co., 422 W. Liberty St., organized with J. J. Carder, Prest.; T. W. Scott, Mgr.; has plant. Lately noted incptd., capital $50,000. (See Machinery Wanted—Heaters (Gasoline or Kerosene); Tanks and Heaters; Soda.)

La., Alexandria—Creamery—J. L. Pitts, Sherman Cook, W. D. Moore, and others, interested in establishing creamery.

La., Alexandria — Mint-Cola — Mint-Cola Co., of Louisiana, Avery Carter, Director, Shreveport, La., plans expending $25,000 to $30,000 to establish branch plant.

Md., Baltimore—Shirts—Wise Brothers, 132 W. Fayette St., increased capital from $1,500,000 to $1,750,000.

Md., Baltimore — Ice Cream etc. — Old Homestead Dairy, 1009 Calvert Bldg., capital $100,000, incptd. by Francis A. and Francis M. Lazenby, Louis Snesil and Jos. D. Stark.

Md., Baltimore — Battery — American Elementary Electric Co., 20 E. Lexington St., capital $25,000,000, organized with Geo. S. Engle, Prest. and Gen. Mgr.; Chas. F. Gries, Treas.; Theodore C. Lewis, Secy.; will mfre. new type electric storage battery for automobiles.

Md., Baltimore — Hats, etc. — Robinson-Fleishman Co., 533 W. Baltimore St., capital $25,000, incptd. by Isaac Robinson, Saml. Fleishman and Jesse Fine.

Md., Baltimore — Toys, etc. — Southern Stationery & Toy Co., 507 Calvert Bldg., capital $22,000, incptd. by Robt. J. Caplan, Aaron S. Applestein and Ellis Rosenberg.

Md., Baltimore — Candy, etc. — Hammack Chocolate Co., 1827 Bolton St., capital $10,000, incptd. by Tennyson E. Hammack, Howard Rigdon and Foster H. Fanseen.

Md., Baltimore — Needlework — Orthing Shop, 5 W. Franklin St., incptd. by Thos. Spence Creney, Carrie Shallus Ing, Mabel Shaffer Orth.

Md., Baltimore—Pharmaceutical Preparations—Hancock-Smiths, 823½ W. Lombard St., incptd. by Frank A. and Henry S. Hancock, and Geo. A. McDermit.

Md., Hamilton Sta., Baltimore—Tobacco—Baltimore Thompson Corp., Harford Road and Hamilton Ave., capital $25,000, incptd. by Jas. H. and Mark A. Thompson, and Chas. P. Burger, 123 Montebello Terrace.

Md., St. Helena St., Baltimore—Vinegar—Patrick H. Connorton, purchased 7-acre site; plans erecting vinegar plant.

Okla., Oklahoma City—Trunks — Joseph Pollack Trunk Mfg. Co., capital $25,000, incptd. by Joseph Pollack and A. B. Smith.

S. C., Chester—Bakery—Catawba Steam Bakery, F. A. Feuchtenberger, Propr., let contract to Chas. Huggins, to rebuild plant recently burned.

S. C., Columbia—Extracts—Halo Co., capital $400,000, incptd. with Geo. E. Hair, Prest., Bamberg, S. C.; E. M. Lowman, Secy., Columbia.

S. C., Florence—Creamery—Creamery Development Co., capital $15,000, incptd. by F. H. McLeod, J. W. Ivey and S. I. Sulzbacher.

Tenn., Columbia — Marble — W. M. Dean Marble Co., W. M. Dean, Prest.-Mgr., Cemetery Ave. & Road, plans erecting new building; bids opened last of year.

Tenn. Kingsport—Gloves—W. H. Johns, Box 152, contemplates establishing plant to mfre. canvas gloves. (See Machinery Wanted: Glove Material; Glove Machinery.)

Tenn., Knoxville—Paper Boxes—Knoxville Paper Box Co., let contract to Warsham Bros., to construct 125x50 ft. concrete and brick plant; composition roof, maple floors; install heating and lighting plant; total cost $30,000; mfre. paper boxes; R. F. Graf & Sons, Archts.

Tenn., Memphis—Drugs—Millin Drug Co., organized with M. M. Martin, Prest.-Mgr.; W. J. Russel, V.-P. and Treas.; L. W. Hughes, Secy. Lately noted incptd., capital $100,000. (See Machinery Wanted—Signs.)

Tenn., Memphis—Plaster Board—Stryker Kot—N—Wood Products Co., Geo. B. Stryker, Prest.; purchased site; will erect first unit of plant to convert cotton stalks into plaster board, floor tile, paving brick, etc.; 200x60 ft. fireproof building; install hydraulic press, digester, mixer and shredder; will also construct boiler house, warehouse and store room. (Lately noted to establish plant.)

Tex., Dallas—Tents, etc.—Dallas Tent & Awning Co., Chas. L. Foord, Prest. and Gen. Mgr., 2620 Main St., let contract to Inge Construction Co., at $45,000 to erect 3-story 100x100 ft. semi-fireproof daylight factory building; exterior finished with face brick; install heavy machinery and tent sewing machines, etc.

Tex., Houston — Drugs — Odin Avenue Drug Co., incptd. by Harry Cohen, L. C. Derbonne and A. B. Crocker.

Tex., San Antonio—Rubber—Bear Rubber Mills Corp., capital $1,000,000, incptd. by Don E. Cameron, Chas. Massey and Claude J. Kelley.

Tex., Sherman—Candy—A. B. C. Candy Co., capital $150,000, incptd. by Thos. E. and Chas. A. Hopson.

Tex., South Bend—Drugs—Mouton Drug Co., incptd. by E. C. and J. C. Mouton and S. E. Cruse.

Va., Norfolk—Clothing—Frank Thomas Co., capital $25,000, incptd. with Frank Thomas, Prest.; C. E. Thomas, Secy.

Va., Norfolk—Glass Products—Tidewater Glass Mfg. Co., J. L. Welton, Prest., let contract to Milliken Bros., New York, to erect 200x51 ft. steel construction building; install blowing machines, air compressor, air fan motors, lathe, drill, etc. to mfre. glass bottles; bids until Nov. 1.; T. C. Williams, V.-P. and Archt., Norfolk, Va. Lately noted. (See Machinery Wanted—Air Compressor; Fan; Lathe; Press.)

Motor Cars, Garages, Tires, Etc.

Ala., Birmingham—Filling Station—Archibald S. Johnson will erect filling station of brick and steel construction.

Ala., Mobile—Garage—Driverless Car Co., capital $10,000, incptd. by J. C. Jordan, Prest.; H. M. Jordan, Secy.-Treas.

D. C., Washington—Garage—C. H. Small, 2032 Allen Place, will erect brick garage.

Fla., Jacksonville—Automobile Tops—Jax Auto Top Co., incptd. by Hermann Weisenburger and Arthur G. Schaefer.

Fla., Orlando—Motors—Ford Motor Co., S. Orange Ave., plans to erect $20,000 building, 80-ft. front; steel construction.

Fla., St. Petersburg—Service Station, etc.—J. Mott Williams will erect 2-story building, ground floor used as service station.

Fla., Tampa—Motors, etc.—Hulsey-Holtsinger, capital $25,000, incptd. with H. J. Hulsey, Prest.; T. N. Shackleford, Secy.

Ga., Augusta—Motors—Henry W. Weathers Motor Car Co., capital $20,000, incptd. by J. K. Sanford and Henry W. Weathers.

Ky., Louisville — Automobiles — Chandler Auto Co., incptd. by W. L. Chandler, M. H. and Maurice T. Collins.

Ky., Whitesburg — Motors — Boone Motor Co., capital $10,000, incptd. by A. J. Leach, Henry Pfening, Jr., and Ben F. Wright, all Seco, Ky.

La., Lecompte — Motors — McKenzie-Adler Motor Co., capital $20,000, incptd. with S. H. Adler, Prest.; A. F. Lanier, Secy.-Treas.

Md., Baltimore—Automobile Accessories—Auto Accessory Assn., 1107 Madison Ave., capital $100,000, incptd. by Sydney, Marcus H. and Leroy Walter Weil.

Md., Baltimore—Garage.—Roland Park Co. let contract to John E. Marshall & Son, 117 South St. to erect 1 story 19 ft. 6-in.x21 ft. brick garage, slate roof.

Md., Baltimore—Garage—John Retzler, 112 Diamond St. let contract to erect 2 story, 50x92 ft. 6-in. brick garage, slag roof, $9,000.

Md., Baltimore—Automobiles—Automobile Mfg. Co., 1301 Fidelity Bldg., capital $50,000, incptd. by John D. Nock, Irvin J. Sullivan and Frank P. de Hoff.

Md., Baltimore—Service Station—Standard Oil Co., Pier 2, Pratt & Commerce St., will erect gasoline station at Singer and Garrison Aves.

Md., Baltimore—Garage.—Charles Neubert, 111 Hollingsworth St., will erect 75 1-story brick garages, each 10x20-ft., estimated cost $15,000; Plaza Engineering Co., Archt., 416 E. Lexington St.

Md., Baltimore—Automobiles—Star Sales Co., 6 E. Mt. Royal Ave., capital $20,000, inceptd. by James P. Cragg, I. Roger Robinson and James M. Witham.

Md., Baltimore—Garage—George W. Alt let contract to C. A. Lephardt, 124 Rookwood Ave. to erect eighteen 1-story concrete block garages.

Md., Baltimore—Automobiles—Franklin Motor Car Co., Charles and Biddle Sts., let contract to Consolidated Engineering Co., Calvert Bldg., to erect $100,000 building, stone and ornamental terra-cotta construction; has 40x150-ft. site; Otto G. Simonson, Archt., Maryland Casualty Tower Bldg. (Supersedes recent item.)

Md., Baltimore—Service Station—J. Irving Bealmear will erect automobile service station; Frederick E. Beale, Archt., 1335 Gilmor St.

Md., Baltimore—Automobile Parts—Auto Parts Co., 104 N. Front St., capital $100,000, inceptd. by Joseph Nechamkin, John and George Beck; install equipment. (See Machinery Wanted—Automobile Parts.)

N. C., Asheville—Automobiles—Franklin Motor Co., capital $50,000, inceptd. by J. E. Brookshire, C. M. Williams and Wayne Beachboard.

N. C., Asheville—Tires and Casings—Trail Blazers Assn., capital $30,000, inceptd. by J. G. Isenhour, L. L. Rose and M. K. Thomas; mfre. tires and casings.

N. C., Norlina—Motors—Strickland Motor Co., capital $100,000, inceptd. with J. A. Meeder, Prest.; S. E. Woodard, Secy.; J. H. Olson, Mgr.; will erect 50x125-ft. fireproof garage building; install shaper, plane, drill press, etc. (See Machinery Wanted—Garage Equipment.)

S. C., Greenville—Motors—K. S. Conrad Co., capital $60,000, inceptd. with K. S. Conrad, Prest.; V. O. Garrison, Secy.-Treas.

S. C., Greenwood—Automobile Accessories—Auto Trade & Accessory Co., inceptd. with S. S. Arant, Prest.-Treas.; H. A. Rush, V.-P. and Secy.

Tenn., Knoxville—Garage, etc.—Cherokee Motor Co., Claude S. Reeder, Prest., 314 State St., will erect 60x150-ft. fireproof building, $80,000; bids open Oct. 10; install $10,000 equipment for repairing automobiles. (Lately noted.)

Tenn., Memphis—Garage—Bonded Garage Assn., capital $50,000, inceptd. by T. L. Pinson, G. C. Major and A. B. Baker.

Tenn., Nashville—Garage—Tennessee Highway Dept., R. L. Stoddard, Administrative Secy., let contract to Foster & Greighton Contracting Co. at $35,000 to erect annex to state highway garage, steel truss framework and brick construction. (Lately noted to erect.)

Tex., Dallas—Motor Parts—Motor Parts Depot, capital $50,000, inceptd. by M. Boyd Keith, C. C. Crawford and C. C. Huff.

Tex., Dallas—Garage, etc.—James Jackson will erect 1 story L shaped brick building, 198 ft. long, 98 ft. wide and 55 ft. wide; C. H. Leinback, Archt.

Tex., Dallas—Garage—J. T. and J. H. Jones, 2401 Travis St., let contract to G. W. Hewitt, Slaughter Bldg., to erect 2-story 100x100-ft. brick garage.

Tex., Dallas—Motor Parts—Motor Parts Department, capital $50,000, inceptd. by M. Boyd Keith, C. C. Crawford and C. C. Huff.

Tex., Fort Worth—Battery Station—Ft. Worth Battery Co., 701 Throckmorton St., will erect $12,000 battery station.

W. Va., Elkins—Garage—Mountain State Garage, capital $25,000, inceptd. by H. G. Grimes, C. W. Burke and Jesse Reed.

W. Va., Huntington—Motors—C. C. Magann, Ashland, W. Va., purchased site with 60 ft. frontage, will erect building for automobile agency, etc.

W. Va., Monongah—Automobile Supplies—Monongah Auto Supply Co., 198 Main St., organized with Carroll Currey, Prest.; John D. Anthony, Secy.-Treas. (Lately noted inceptd., capital $50,000.)

W. Va., Quinwood Garage—Quinwood Garage, inceptd. by W. L. Ransberger, John Nuttall and George A. Byrne.

Road and Street Construction.

Ala., Ashland—State Highway Comsn. of Alabama, Montgomery, Ala., let contract to Stanley & Singer Construction Co., LaFayette, Ala., at $159,098.87 to construct 18 mi. road in Clay County connecting towns of Ashland and Goodwater. (Lately noted inviting bids.)

Ala., Camden—State Highway Comsn. of Alabama, Montgomery, Ala., will construct 5.36 mi. Jackson highway; part of Selma-Mobile road; State Trunk Road between Catherine and Kimbrough, Wilcox County; bids until Oct. 26; W. S. Keller, State Highway Engr., Montgomery. (See Machinery Wanted—Road Construction.)

Ala., Camden—State Highway Comsn. of Alabama, Montgomery, Ala., let contract to Miller & Miller of Georgia to construct road between Camden and Monroeville; cost $91,600; A. L. Smith, Engr., Selma, Ala.

Ala., Fort Payne—City will construct several miles sidewalks, curbs, gutters, etc.; invites bids. Address The Mayor.

Ala., Gadsden—City will pave Randall St. from Haralson Ave. to Sixth St.; $155,000; also Sixth Ave., Duncan, Bay, Twelfth, Seventh and other streets; will invite bids. Address The Mayor.

Ala., Gadsden—State Highway Comsn. of Alabama, Montgomery, Ala., let contract to Etowah County to construct 10 mi. section of Birmingham-Gadsden highway between Gadsden and St. Clair county line; bituminous concrete; cost $227,098.56. (Lately noted inviting bids.)

Ala., Montgomery—City will pave Elizabeth St. with gravel; construct sidewalks; install curbing, gutters, etc.; bids opened Sept. 27; J. L. Cobbs, City Treas.

Ark., Blytheville—Mississippi County let contract to Hely & Rouse, Cape Girardeau, Mo., to construct 2 mi. concrete road on Blytheville-Manilla-Leachville road.

Fla., Iverness—Citrus County engaged E. V. Camp and Associates, Atlanta, Ga., to prepare plans and direct construction of approximately 70 mi. highways. (Lately noted inviting bids.)

Fla., Lake City—State Road Dept. of Florida, Tallahassee, Fla., will construct compacted rock base and bituminous macadam wearing surface on section of State Road No. 1, 9.89 mi.; Federal Aid Project No. 24, Columbia County, between Lake City and Baker county line; alternate bids on concrete, grouted brick, asphaltic concrete, sheet asphalt and rock asphalt; bids until Oct. 20; H. B. Phillips, Chrmn., Tallahassee. (See Machinery Wanted—Road Construction.)

Fla., Pensacola—City Commrs. let contract to John Gerkins, to pave east side of DeVilliers St. between Government and Chase Sts.

Ga., Athens—Clarke County will improve roads. Address County Commrs.

Ga., Atlanta—City approved plans for widening and improving Peachtree St. from Forrest to North Ave.; J. N. Landers, Purchasing Agt.

Ga., Atlanta—City will grade Eighth St. from Bedford Place to N. Jackson St.; bids opened Oct. 1; C. M. Holland, Purchasing Agt.

Ky., Louisville—Board Public Works let paving contracts as follows: Henry Bickel Co., at $8,874.50, Tenth St. from Walnut to Chestnut Sts.; at $6,031.50, Camp St. from Clay to Shelby Sts.; Louisville Asphalt Co., at $9,181.80, Madison St. from 24th to 26th St.; all asphalt; Thos. B. Crutcher, Chrmn.

La., Arcadia—Bienville Parish let contract to improve link of Dixie Overland highway running through Bienville parish. Address Police Jury.

La., Baton Rouge—Highway Dept., Board State Engrs., 332 Maison Blanche Annex, New Orleans, La., will construct .95 mi. Stewart Swamp Section of Baton Rouge-Clinton highway; gravel surfacing; East Baton Rouge Parish; bids until Oct. 6; Duncan Buie, State Highway Engr., New Orleans. (See Machinery Wanted—Road Construction.)

La., Monroe—City plans to pave 15 or 20 mi. streets; $2,000,000; R. S. Reynolds, City Engr. (Lately noted.)

La., Shreveport—City will pave north and south alley in Block 3, Herndon Ave., and other alleys; bids until Oct. 11; J. C. Flanagan, Secy.-Treas. (See Machinery Wanted—Paving.)

Md., Baltimore—Board of Awards, Mayor Wm. F. Broening, Prest., will construct 15,200 sq. yds. cement concrete paving; Contract No. 200-NA; bids opened Oct. 5.

Md., Towson—State Roads Comsn., 601 Garrett Bldg., Baltimore, will construct 1.07 mi. State Highway along Frederick road from Baltimore city line to Catonsville; sheet asphalt on reconstructed base; bids opened Sept. 27.

Miss., Macon—Noxubee County will construct 1 mi. public road beginning at McLeod Chapel and ending at Martin Chapel; bids at office of Strong & Bush, Attorneys on Oct. 15; W. B. Butler, Commr. Dist. No. 5. (See Machinery Wanted—Road Construction.)

Miss., Woodville—Wilkinson County will complete highway from Woodville to Adams county line; issued $75,000 bonds. Address County Commrs.

Mo., Cape Girardeau—City let contract to F. W. Keller to pave Main St.; A. P. Behrens, Clk. (Lately noted inviting bids.)

Mo., Centerville—State Highway Dept., Jefferson City, Mo., plans constructing 7 mi. state road from Ellington northward; Reynolds County; Project 18.47C; work includes grading, excavating, constructing drainage structures, etc.; $4289.36 approximate cost; M. S. Murray, Div. Engr., Sikeston, Mo.

Mo., Edina—State Highway Dept., Jefferson City, Mo., plans constructing 3.78 mi. state road from Edina northward and southward; Knox County; $23,843.63; Project 20.106; A. W. Graham, State Highway Engr., Jefferson City, Mo., M. S. Hamick, Div. Engr., Howe Bldg., Macon, Mo.

Mo., Kansas City—Board Public Works let contract to Keeler Contracting Co., at $19,968.10 to pave Wyoming St. between 10th and 14th Sts.; 2,330 sq. yds. granite paving blocks on 8 in. concrete base.

Mo., Keytesville—State Highway Dept., Jefferson City, Mo., will construct 1.75 mi.

state road from Keytesville northward; Chariton County; Project 20.59; $15,865.20; bids until Oct. 13; A. W. Graham, State Highway Engr., Jefferson City, Mo.; M. S. Hamick, Div. Engr., Howe Bldg., Macon, Mo. (See Machinery Wanted--Road Construction.)

Mo., Lancaster—State Highway Dept., Jefferson City, Mo., will construct 6.09 mi. State road from Lancaster eastward and southward; $37,812; bids opened Oct. 5; M. J. Hanick, Div. Engr.. Howe Bldg., Macon, Mo Lately noted. (See Machinery Wanted—Road Construction.)

Mo., Lebanon—State Highway Dept., Jefferson City, Mo., will construct 7.2 mi. State road from Lebanon northward and southwestward; $31,398.04; Laclede County, State Aid Project 20.83; bids opened Oct. 4; H. P. Moberly, Div. Engr., Woodruff Bldg., Springfield, Mo.

Mo., Linn Creek—State Highway Dept., Jefferson City, Mo., let contract to Cooper Construction Service Co., St. Louis, Mo., at $23,703.14 to construct 2.25 mi. State road from Linn Creek northeastward and southwestward; State Aid Project 20.81, Camden County; S. M. Rudder, Div. Engr., Sedalia, Mo. (Lately noted.)

Mo., Macon—State Highway Dept., Jefferson City, Mo., will construct 2.65 mi. state road from Macon westward; Macon County; Project 20.55; $21,812.94; bids until Oct. 15; A. W. Grahan, State Highway Engr., Jefferson City, Mo.; M. S. Hamick, Div. Engr., Howe Bldg., Macon, Mo. (See Machinery Wanted—Road Construction.)

Mo., Memphis—State Highway Dept., Jefferson City, Mo., let contract to F. E. Botts, Independence, Mo., at $14,850.30 to construct 2.99 mi. State road from Memphis eastward and westward; State Aid Project 20.51, Scotland County. (Lately noted inviting bids.)

Mo., Princeton—State Highway Dept., Jefferson City, Mo., will construct 3.63 mi. State road from Princeton southward; $29,048.01; Mercer County, State Aid Project 20.79; bids opened Oct. 3. (Lately noted.)

Mo., St. Joseph—State Highway Dept., Jefferson City, Mo., will improve 6.63 mi. State road from Faucett including grading, constructing culverts, bridges, etc.; cost road work, $302,368.04; bridge work, $36,756.20; bids until Oct. 10; Alexander W. Graham, State Highway Engr., Jefferson City. Lately noted. (See Machinery Wanted—Road Construction.)

Mo., Unionville—State Highway Dept., Jefferson City, Mo., let contract to Cooper Construction Service Co., St. Louis, Mo., at $14,593.19 to construct 5.44 mi. State road from Unionville westward; State Aid Project 20.49, Putnam County; M. J. Hanick, Div. Engr., Howe Bldg., Macon, Mo. (Lately noted inviting bids.)

Mo., Vienna—State Highway Dept., Jefferson City, Mo., will construct 5.49 mi. State road from Hawkins Store northward; State Aid Project 20.99; 7.2 mi. State road from Osage County line northward; State Aid Project 20.98; both Maries County; bids opened Oct. 1; H. D. Griffith, Div. Engr.. DeSoto, Mo.

N. C., Burgaw—North Carolina State Highway Comsn., Dist. Office, Wilmington, N. C., will construct 15.56 mi. State Highway; Project 518; also 7.64 mi. State Highway; Project 541; both Pender County; bids until Oct. 10. Lately noted. (See Machinery Wanted—Road Construction.)

N. C., Charlotte—City Commrs. will expend $200,000 to construct asphalt streets. (Lately noted.)

N. C., Charlotte—Dilworth Building Co., 214 E. Trade St., let contract to Simmons Construction Co., Selwyn Hotel Bldg., to pave streets in Dilworth including Tremont Ave., 7 blocks, cost $22,000; also Sarah Marks Ave., Ideal, Way and Charlotte Drive; etc.; total cost $75,000.

N. C., Elizabethtown—North Carolina State Highway Comsn., Dist. Office, Wilmington, N. C., will construct .75 mi. State Highway in Balden County; Project 623; bids until Oct. 10. (See Machinery Wanted—Road Construction.)

N. C., Hayesville—North Carolina State Highway Comsn., Dist. Office, Asheville, N. C., let contract to Lee J. Smith, Charlotte, N. C., at $79,542 to grade 12.37 mi. State Highway in Clay County; Project 548-A. (Lately noted inviting bids.)

N. C., Lillington—North Carolina State Highway Comsn., Dist. Office, Wilmington, N. C., will construct 75 mi. State Highway in Harnett and Cumberland counties; Project 624; bids until Oct. 10. (See Machinery Wanted—Road Construction.)

N. C., Louisburg—Township Road Comsn., Sandy Creek Township will construct 2½ mi. Louisburg to Warrenton road and other roads; bids until Oct. 17; M. S. Davis, Civil Engr. (See Machinery Wanted—Road Construction.)

N. C., Lumberton—North Carolina State Highway Comsn., Dist. Office, Wilmington, N. C., will construct 3.35 mi. State Highway in Robeson County; State Project 621; bids until Oct. 10. Lately noted. (See Machinery Wanted—Road Construction.)

N. C., Marshall—North Carolina State Highway Comsn., Dist. Office, Asheville, N. C., let contract to R. H. Wright, Asheville, N. C., at $178,328 to grade 13.80 mi. State Highway in Madison and Yancey counties; Project No. 557. (Lately noted inviting bids.)

N. C., Monroe—Union County Road Comsn. let contract to J. E. McCain, Geo. McCain and D. S. Wilson to top-soil Providence Road, and build bridge over Twelve-Mile Creek.

N. C., Monroe—Union County will sell $100,000 bonds for road and bridge construction; M. C. Long, Clk. Commrs.

N. C., Murphy—North Carolina State Highway Comsn., Dist. Office, Asheville, N. C., let contract to H. A. Wells Construction Co., Asheville, N. C., at $62,080 to grade 10.33 mi. State Highway in Cherokee County; Project 534. (Lately noted inviting bids.)

N. C., Oxford—Granville County will sell $150,000 road construction bonds; C. G. Powell, Clk. Commrs.

N. C., Robbinsville—North Carolina State Highway Comsn., Dist. Office, Asheville, N. C., let contract to Lee J. Smith, Charolotte, N. C., at $147,480 to grade 12.98 mi. road in Graham County. Project No. 545. (Lately noted inviting bids.)

N. C., Shelby—City will construct about 150,000 yds. paving, culverts, storm, sewers, etc.; concrete or concrete asphalt; $300,000 available; bids probably in Feb. 1922; J. T. Gardner, Mayor.

N. C., Thomasville—City will sell $100,000 bonds for street and waterworks improvements. Address The Mayor.

Okla, Idabel—McCurtain County will construct 70 mi. rock highways; sold $350,000 bonds; $350,000 Federal Aid. Address County Commrs.

Okla., El Reno—City let contract for paving alleys in business section. Address The Mayor.

Okla., Muskogee—Muskogee County will construct gravel road designated as Miles 4, 5, 6, 7 and 8, Section C; bids until Oct. 10; Lewis F. Kipp, County Clk. (See Machinery Wanted—Road Construction; Gravel.)

Okla., Muskogee—City let contract to J. J. Rooney, Surety Bldg., to construct 4 blocks; salina gravel; $8,000 available; Jno. R. March, City Engr. (Lately noted inviting bids.)

Okla., Muskogee—Muskogee County will construct roads; cost $2,000,000. Address County Commrs.

Okla., Pauls Valley—City, J. S. Bottoms, Clk., plans paving 20 blocks; V. V. Long & Co., Engrs., Colcord Bldg., Oklahoma City, Okla.

Okla., Pawhuska—City will pave streets in Dist. No. 11 including 5 blocks on Grandview Ave. and 5 blocks on 11th St.; asphaltic concrete; low bidder Stanton-Ammerman Co., Wichita, Kans.

Okla., Tulsa—City will pave Quincy Ave. from south line of Sixth St. to north line of 15th St. from north line of Sixth St. to north line of Fifth Court; Phoenix, St. Louis and other streets; bids opened Sept. 29; Mrs. Frank Seaman, City Auditor.

S. C., Abbeville—Abbeville County let contract to J. L. Carroll, at $23,071.2 to construct 7.57 mi. Abbeville-Greenwood road; L. W. Keller, Secy. Highway Comsn. (Lately noted inviting bids.)

S. C., Aiken—City will pave Curve St.; concrete; $7,500. Address The Mayor.

Tex., Athens—City will pave 12 blocks street; sell $100,000 warrants. Address The Mayor.

S. C., Hartville—City will construct streets and sidewalk improvements; voted $110,000 bonds; P. H. Rogers, Jr., Mayor. (Previously noted to vote.)

S. C., Walhalla—Oconee County Highway Comsn. let contract to Constellar Bros. to construct 12 mi. top-soil road from Seneca by High Bridge and Cross Roads to Anderson county line at Townville. (Lately noted inviting bids.)

Tenn., Camden—Benton County will sell $50,000 road construction bonds. Address County Court.

Tenn., Newport—Cocke County will construct roads; voted $200,000 road bonds. Address County Commrs. (Previously noted to vote.)

Tex., Atlanta—City will construct 11,000 sq. yds. brick pavement on 4 in concrete base; asphalt filler; cost $50,000; T. A. Howe, Mayor; H. N. Roberts, Civil Engr. Box 9, Longview, Tex. (Lately noted.)

Tex., Austin—Travis County may vote on $1,250,000 bonds to rebuild and repair roads, bridges and culverts; Geo. S. Matthews, County Judge.

Tex., Big Spring—Howard County will construct 34.25 mi. road; Job 115-A. F. A. Project 235-A.; bids until Oct. 10; R. A. Baker County Engr. Lately noted. (See Machinery Wanted—Road Construction.)

Tex., Canton—Van Zandt County will construct 29.6 mi. road; Job 234-B.; Federal Aid Project 84; bids opened; C. L. Hubbard, County Judge.

Tex., Cameron—Milam County will repair roads and bridges; $6,000; A. F. Mitchell, County Engr.

Tex., Comanche—U. S. Dist. Engr., Fort Worth, Tex., approved plans for construction of 8 mi. 16-ft. gravel road on Highway No. 22, Comanche County; cost $109,000. L. D. Parks, County Engr., De Leon, Tex.

Tex., Del Rio—Val Verde County will construct 4.3 mi. 18-ft. gravel road on State Highway No. 12; will invite bids; G. M. Jowers, County Engr.

Tex., Edinburg—Hidalgo County let contract to W. S. Pearson, Houston, Tex., at $179,000 to construct Caliche road from Brooks county to Edinburg.

Tex., Fort Davis—Jeff Davis County will construct Highway No. 1 road; 2,774.2 cu. yds. surfacing; bids until Oct. 8; J. W. Merrill, County Judge. Lately noted. (See Machinery Wanted—Road Construction.)

Tex., Georgetown—Williamson County will sell $336,000 bonds for road and bridge construction. Address County Commrs.

Tex., Gonzales—U. S. Dist. Engr., Fort Worth, Tex., approved plans for construction of 12 mi. 15-ft. gravel road on Middlebuster highway; Highway No. 29; Gonzales County; Chas. F. Tom, County Engr.

Tex., Groesbeck—Limestone County let contract to G. D. Roan, to surface 4 mi. Highway No. 7; gravel and crushed rock; cost $45,100.64; Fred P. Holt, County Engr.

Tex., Kaufman—Kaufman County will construct 3.91 mi. Elmo—Hiram road in Terrell Independent Road Dist., Precinct No. 3; bids until Oct. 6. Address G. C. Cartwright, Room 28, Cartwright Bldg., Terrell, Tex. (See Machinery Wanted—Road Construction.)

Tex., Livingston—State Highway Dept., Austin, Tex., approved plans for construction of 9.7 mi. 15-ft. gravel road on Highway No. 35; cost $265,000; W. C. Youngs, County Engr.; E. T. Murphy, County Judge. (Lately noted inviting bids.)

Tex., Marshall—Harrison County will complete Harleton and Elysian Fields roads; will invite construction bids; sold $50,000 bonds; W. H. Strength, Judge.

Tex., Midland—Midland County will construct 26.91 mi. State Highway No. 1; Job 165-A; F. A. Project 235-C; bids until Oct. 10; R. A. Baker, County Engr. Supersedes recent item. (See Machinery Wanted—Road Construction.)

Tex., Odessa—Ector County will construct 34.74 mi. road; Job 69-B, F. A. Project 235-D; bids until Oct. 10; R. W. Baker, County Engr., Big Springs, Tex. Supersedes recent item. (See Machinery Wanted—Road Construction.)

Tex., Pecos—Reeves County will construct Highway No. 1; Federal Aid Project 242-A, Job 195-A. section A; also Highway No. 1, Federal Aid Project 242-B, Job 195-A, Section B; bids until Oct. 6; S. C. Vaughan, County Clk. Lately noted. (See Machinery Wanted—Road Construction.)

Tex., Port Arthur—City will pave 2.6 mi. streets and ½ mi. alleys; vote on bonds; E. R. Thomas, City Engr.

Tex., Port Lavaca—Calhoun County will construct 11.37 mi. highway; Job 29-C, F. A. Project 248, Highway No. 7; bids opened Oct. 4; Richard H. Phillips, County Engr., San Antonio, Tex.

Tex., Quitman—Wood County let contract to Purvis, Lowery & Hanks, Fort Worth, Tex., at $28,413.84 to surface Highway No. 37; J. E. Blair, County Engr., Mineola, Tex.

Tex., San Antonio—City Commrs. appropriated $60,000 for immediate repaving of streets damaged by flood; D. D. Harrigon, City Engr.

Tex., San Saba—San Saba County will vote on $300,000 bonds for road construction. Address County Commrs.

Tex., Stanton—Martin County will construct 12.79 mi. State Highway No. 1; Job 156-A, F. A. Project 235-B; bids until Oct. 10; R. W. Baker, County Engr., Big Spring, Tex. Supersedes recent item. (See Machinery Wanted—Road Construction.)

Tex., Waxahachie — Ch. Engr., U. S. Bureau Public Roads, Washington, D. C., approved plans for construction of 11.41 mi. 16-ft. gravel road on Highway No. 14, Ellis County; cost $230,993.18; G. G. Edwards, County Engr., Ennis, Tex.

Va., Alexandria—City will issue $120,000 bonds for street improvements. Address The Mayor.

Va., Farmville—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va., let contract to W. W. Boxley & Co., Roanoke, Va., at $101,688 to construct 3.85 mi. 16-ft. concrete road on State road No. 10 north and west of Farmville, Prince Edward County. (Supersedes recent item.)

Va., Manassas—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va., let contract to Hyde & Baxter, 1311 G St. N. W. Washington, D. C. at $132,244 to construct 6.5 mi. bituminous macadam road on State Road No. 21 between Greenwich and Milford Mills; Prince William County, Project No. 30. (Supersedes recent item.)

Va., Martinsville—Virginia State Highway Comsn., 116 S. Third St., Richmond, Va., let contract to Jamison Bros, Rustburg, Va., at $39,607 to construct 8.29 mi. soil road on State road No. 12 from Five Forks to Patrick county line; Henry County. (Supersedes recent item.)

Va., Martinsville—Henry County will construct top-soil roads as follows: from Elmwood to Mountain Valley, 4.36 mi.; from Martinsville via Leatherwood, Mountain Valley to county line, 15.84 mi.; from about ¾ mi. from Ridgeway on Ridgeway and Spray Road to Eaggleston's store, 3.39 mi.; from Morgan's Ford bridge to point on Ridgeway and Spray road 3 mi. from Ridgeway, 5.9 mi.; from Dillon's fork via Center church to county line near old Dillon place, 7.46 mi.; from Mayo church to North Carolina line, 3.18 mi.; from Oak level to Philpott, 4 mi.; from Jones Creek to point on Barrow's Mill road, 3.73 mi.; bids until Oct. 8; H. D. Whittle, Road Engr. (See Machinery Wanted—Road Construction.)

W. Va., Elkins—City will pave 12th St.; brick laid on concrete base or concrete pavement; construct 2,000 ft. Livingstone Ave.; concrete pavement; bids until Oct. 15; Geo. Henry, Clk.; Edward G. Elliott, City Engr. (See Machinery Wanted—Paving.)

Sewer Construction.

Ala., Fort Payne—City will install sanitary sewer district in south end, to drain about 15 blocks. Address The Mayor.

Fla., Manatee — City, T. M. McDuffee, Mayor, will extend sewer and water systems; cost $10,000; plans voting bonds; McElroy Engineering Co., Engr., Tampa, Fla.; Chas. J. Majory, Clk. (Lately noted.)

Fla., Valparaiso—City Comsn., A. P. Kastler, City Clk., will issue $25,000 sewer bonds.

Ga., Cedartown—City, H. M. Hall, Mayor, will extend sewer, water and light systems; grade streets, improve drainage, etc.; plans voting on $160,000 bonds.

Ky., Ashland—City, H. R. Dysard, Mayor, will install and extend sewers; vote Nov. 8 on $250,000 bonds. Donald H. Putnam, Chrmn. Sanitation Committee. (Lately noted.)

Ky., Frankfort—City, W. S. Rosson, Mayor, let contract to Howerton-Tinsway Co., Asheville, N. C., at $61,000, to construct Holmes St. sewer and drainage canal; S. F. Crecelius, Civil Engr., Danville, Va. (Lately noted.)

Md., Baltimore — Public Improvement Comsn., Robt. Garrett, Chrmn., is reported to have acquired sewers and other sub-surface rights of City and Suburban Realty Co.; Mayor Wm. F. Broening, Prest. Board of Awards; Wm. A. Megraw, Water Engr.

Mo., St. Louis—City, Board of Public Works, let contract to Alfred Lewald, 5909A Etzel Ave., at $21,765, to extend outfall sewer; consruct 9-ft. circular 4-ring brick sewer for Hodiamont Ave. Sewer Dist. No. 1; W. W. Horner, Engr. City Hall. (Lately noted.)

N. C., Charlotte—City Commrs. will expend $150,000 to extend sewerage system. (Lately noted.)

N. C., Shelby—City, J. T. Gardner, Mayor, will construct storm sewers, paving and concrete culverts; $300,000 available; bids probably in Feb. 1922.

Okla., El Reno—City Comsn. let contract to install sanitary sewers in newly created districts.

Okla., Sayre—City, W. E. Simmonds, Clk., will extend sewer system; construct 3,300 lin. ft. 8 and 12-in. V. S. sewer lines including trenching and backfill; 300 lin. ft. 12-in. cast iron pipe sewer lines; 50 Y openings; 12 manholes; 2 lampholes, etc.; bids until Oct. 25; V. V. Long & Co., Consit. Engrs., 1300 Colcord Bldg., Oklahoma City. Lately noted. (See Machinery Wanted—Sewers.)

Okla., Wilson—City plans extending sewer system. Address The Mayor.

S. C., Batesburg—City let contract to J. B. McCrary Co., Atlanta, Ga., at $40,000, to extend sewer system. Address The Mayor.

S. C., Hartsville—Town, P. H. Rogers, Jr., Mayor, voted $24,000 sewer bonds. (Lately noted to vote.)

Tenn., Memphis—City, Rowlett Paine, Mayor, will construct Binghampton sanitary sewer outlet main; 9,540 lin. ft. 33-in. terra cotta pipe; 4,450 ft. 21 and 18-in. pipe; 25 manholes; 60-ft. siphon; concrete spillway; bids until Oct. 18; C. C. Pashby, Clk. (See Machinery Wanted—Sewer Construction.)

Tex., Cameron—City will install sewage disposal, water and electric light plants; cost $250,000; plans voting bonds; Engineering Service Co., Consit. Engr., Sumpter Bldg., Dallas, Tex.

Tex., Dallas — City plans expending $300,000 to construct sanitary sewer in Pacific Ave.; Geo. D. Fairtrace, City Engr.

Tex., Fort Worth—City Mayor Cockrell, contemplates constructing sewage disposal plant; Ira L. Reeves, Engr., Tulsa, Okla.; City Engr. Lewis; Water Commr. Lord; both of Fort Worth.

Tex., Port Arthur—City will improve sewer system; extend lines from Flanagan to Vandervoost Aves.; from Thomas Boulevard to 19th St.; vote on bonds; E. R. Thomas, City Engr. (Lately noted.)

W. Va., Huntington—Board of Commrs., Mat Miser, Commr. of Streets and Sewers, will construct sewers in 29th St. and 5½ Alley, and in Staunton Road and alley between Staunton and Winters Road; bids opened; A. B. Maupin, City Engr. (See Machinery Wanted—Sewers.)

Telephone Systems.

Ala., Cloverdale—Cloverdale Community Club has plans to install telephone system also line to Florence; D. H. Renegar, Chrmn. of Committee.

Ark., Mountain Home—Interstate Telephone Co. reported to build 10 mi. line to Henderson, Ark., also contemplate a line to Norfolk, Ark.

Fla., Tampa.—Tropical Radio Telegraph Co., George S. Davis, Gen. Mgr., Boston, Mass., reported to establish radio station; J. W. Barritt, Mayor.

Fla., West Palm Beach—Palm Beach Everglades Telephone Co. (lately noted incptd., capital $10,000), F. J. Anderson, Secy., reported to establish telephone connections between West Palm Beach and Okeelanta, Moore Haven and east coast.

Okla., Poteau—Poteau Telephone Co. will erect 2-story 25x80-ft. exchange building; J. McLaughlin, Engr., Bartlesville, Okla.

Tex., Beaumont—Western Union Telegraph Co. reported to erect $50,000 plant, install 2 multiplex machines; J. G. Helbert, district plant Supt.; A. F. Moha, Gen. Mgr.

Tex., Mexia—Humble Oil & Refining Co., Houston, Tex., plans establishing telephone lines from oil fields to Mexia and telegraph lines direct, also other improvements. (See Gas and Oil Enterprises.)

Tex., San Benito—J. A. Frisby, Morrilton, Ark., purchased telephone system, including 4000 phones; P. D. Frisby, Arkadelphia, Ark., Mgr.

W. Va., Beckley—Chesapeake & Potomac Telephone Co., G. H. Warren, Div. Mgr., 5 Light St., Baltimore, Md., leased portion of Raleigh County Bank Bldg. install equipment in switch board room, office, furnish and equip rest room, etc.; contemplate consolidation with Trap Hill lines.

W. Va., Charleston—Chesapeake & Potomac Telephone Co., W. T. Williams, Div. Mgr., authorized expenditure of $307,050 in state of West Virginia; $15,400 used for additional cables and wire in Woodsdale section, Wheeling; appropriate $28,600 for placing 51 poles, 21,175 ft. of aerial cable and 2180 ft. underground cable in Barracksville, Morgantown and Gaston Ave. sections Fairmont, W. Va.

Textile Mills.

N. C., Hendersonville—Hosiery, etc.—Harkins-Hammack-Whitlock Co., capital $100,000, incptd. by W. D. Hammack, I. E. Harkins and G. T. Whitlock.

N. C., Shelby—Yarn—Shelby Cotton Mills, J. C. Smith, Secy.-Treas.; plans erecting addition to slasher room.

S. C., Greenville—Bleachery—Union Bleaching & Finishing Co., J. W. Arrington, Prest., Buncombe St., is enlarging plant and installing machinery; weekly output 2,000,000 yds. cloth; will also mercerize muslin, cambrics, percales, etc.

Tenn., Knoxville—Hosiery—Attix Hosiery Mills, E. D. Attix and J. T. Tomblin, Owners, 721 N. Central Ave.; rent building; install first unit with daily capacity of 50 doz. pairs ladies' silk hose; purchased machines from Scott & Williams, 366 Broadway, New York. (Lately noted to establish plant.)

Va., Marion, Hosiery—Paul Knitting Mills, T. J. Wallner, Gen. Mgr., Pulaski, Va., contemplates establishing branch plant at Marion or Wytheville, Va.

Va., Wytheville—Hosiery—Paul Knitting Mills, T. J. Wallner, Gen. Mgr., Pulaski, Va., contemplates establishing branch plant at Wytheville or Marion, Va.

Water-Works.

Ala., Albany—Alabama Water Co., Jno. B. Weakley, Prest., will install settling basin.

Ala., Gadsden—City will extend water-works; lay 5,000 ft. mains on Christopher Ave., from 10th to 12th Sts.; 10th from Tuscaloosa to Brooklyn Heights; 11th from Pine to Hickory; Ewing from Hammonds to city limits, etc. Address The Mayor.

Ala., Troy—City will extend and repair water-works; vote Oct. 24 on $25,000 bonds. Address The Mayor.

Ark., Piggot—City contemplates installing water and electric lighting systems. Address The Mayor.

Fla., Clermont—City will issue $30,000 water-works bonds. Address The Mayor.

Fla., Live Oak—City, W. H. Lyle, Chrmn. Water-Works Committee, acquired 168 ft. site, adjoining present water-works; plans constructing bathing pool, new reservoir, and drill deep well. (Lately noted improve water-works.)

Fla., Manatee—City, T. M. McDuffee, Mayor, will extend water and sewer systems; cost $10,000; plans voting bonds; McElroy Engineering Co., Engr., Tampa, Fla.; Chas. J. Majory, Clk.

Fla., Valparaiso—City Comsn., A. P. Kastler, City Clk., will issue $25,000 water-works bonds. (Lately noted to install water-works.)

Fla., West Palm Beach—West Palm Beach Water Co., will improve water-works; construct standpipes and lay mains in new sections.

Ga., Augusta—Globe Cotton Mills, Walker St., will erect pumping plant and warehouse at plant.

Ga., Cedartown—City, H. M. Hall, Mayor, will extend water, sewer and light systems; grade streets; improve drainage, etc., plans voting on $160,000 bonds.

Ga., Jackson—City will enlarge filtering station at water-works; increase daily capacity of filtered water from 250,000 gals to 500,000 gals. Address The Mayor.

La., Bossier—City, G. B. Smith, Mayor, contemplates installing waterworks; lay 4 mi. pipe; secure water from Shreveport. (Lately noted.)

Md., Baltimore — Public Improvement Comsn., Robt. Garrett, Chrmn., is reported to have acquired Evergreen Lawn Water Co.'s plant, at Hamilton, consisting of 20,000 ft. mains and 15,000 ft. service pipes; Mayor Wm. F. Broening, Prest. Board of Awards; Wm. A. Megraw, Water Engr.

Miss., Macon—City let contract to National Water Supply Co., Birmingham, Ala., to drill artesian well. Address The Mayor.

Mo., Hamilton—City contemplates expending $75,000 to construct water-works. Address The Mayor.

Mo., Kansas City—City, Mayor Cowgill, will install and improve water-works; vote Nov. 22 on $11,000,000 bonds. (Lately noted contemplated).

N. C., Asheville—City will extend water lines; lay 1,200 ft. 4-in. pipe; install 3 fire hydrants; total cost $1,200; invited bids; City Engr. Lee. Address The Mayor.

N. C., Charlotte—City Commrs. will improve water-works; install filtration system; construct concrete basins, to replace wooden ones; install equipment; remodel pumping station; total cost $300,000.

N. C., Thomasville—City will issue $100,000 water and street improvement bonds. Address The Mayor.

N. C., Winston-Salem—City, W. H. Holcomb, Clk., let contract to Hagedon Construction Co., Manning, S. C., at $13,850, to raise dam at reserve lake 5½ ft.; increase volume of lake 1,000,000,000 gals; plans remodelling and installing filters, and extending mains; total cost $50,000. (Lately noted to issue bonds.)

Okla., Crescent—City will install water and electric light system; voted $60,000 bonds. Address The Mayor. (Lately noted.)

Okla., Ponca City—City will construct 9,000 ft. 10-in. and 4,500 ft. 4-in. water mains; gate-ways or cut-offs; bids opened. Address The Mayor.

Okla., Pryor—City let contract to Ajax Construction Co., at $28,500, to improve water-works; install duplicate basin system; V. V. Long & Co., Engrs., 1300 Colcord Bldg., Oklahoma City.

Okla., Sayre—City, W. E. Simmonds, Clk., will extend water works; construct 4,300 lin. ft. 4 and 6-in. cast iron pipe lines; eleven 4 and 5-in. valves and boxes; two 4-in. two-way fire hydrants; seven 4 and 6-in. wet connections; relay 500 lin. ft. 6-in. cast iron pipe; install 2 unit reservoir complete; install pumping equipment; 2 horizontal motor driven centrifugal pumping units, capacity 300 G. P. M. each, against 200 ft. head with 25 H. P. 2200 volt, slip ring motors, foundations, switchboard panels, wiring, suction and discharge piping and valves installed complete; direct connected marine engine driven centrifugal fire pump, capacity 500 G. P. M. against 200 ft. head with foundations, gasoline tank and feed line, suction and discharge valves and piping complete, with chlorinator and recording water meter; bids until Oct. 25; V. V. Long & Co., Consit. Engr., 1300 Colcord Bldg., Oklahoma City. Lately noted. (See Machinery Wanted—Water-Works.)

Okla., Vinita—City will issue $200,000 bonds to construct water-works. Address The Mayor. (Lately noted contemplated.)

Okla., Wilson—City will extend water-works; install new equipment; plans voting on $25,000 bonds. Address The Mayor.

S. C., Batesburg—City let contract to J. B. McCrary Co., Atlanta, Ga., at $60,000, to extend water-works. Address The Mayor.

S. C., Hartsville—Town, P. H. Rogers, Jr., Mayor, voted $31,000 water-works bonds. (Lately noted to vote.)

Tenn., Mosheim — City plans installing water-works. Address The Mayor.

Tex., Abilene—City, Dallas Scarborough, Mayor, let contract to American Cast Iron Co., Birmingham, Ala., at $310,000, for pipe line from Lake Abilene to city; and to O'Connor & McLeniore, Cleburne, Tex., at $14,500 for storage basin; W. A. Riney, City Engr. (Lately noted bids until Sept. 16.)

Tex., Bridgeport—Chicago, Rock Island & Pacific Ry. Co., C. A. Morse, Ch. Engr., Chicago, Ill., authorized construction of pumping station to supply water for engines, costing $20,000.

Tex., Cameron—City will install water, electric light and sewage disposal plants; cost $250,000; plans voting bonds; Engineering Service Co., Consit. Engrs., Sumpter Bldg., Dallas, Tex.

Tex., Cisco—City, J. M. Williamson, Mayor, will complete reservoir dam at Lake Cisco; 37,000 cu. yds. concrete; 750 tons reinforcing steel; 10,000 cu. yds. excavation; bids opened; Henry Exall Elrod Co., Engrs., Dallas, Tex. Lately noted to vote on bonds. (See Machinery Wanted—Reservoir Dam.)

Tex., Gatesville—City will construct water-works, or purchase and extend present system; vote Oct. 26 on $42,500 bonds. Address The Mayor.

Tex., Greenville—Greenville Lake & Water Co., capital $56,000, incptd. by C. H. Spurlock, R. M. Patton and H. L. Carpenter.

Tex., Port Arthur—City will improve water-works; extend mains from Flanagan to Vandervoort Aves.; and from Thomas Boulevard to 19th St.; vote on bonds; E. R. Thomas, City Clk. (Lately noted.)

Woodworking Plants.

Fla., Oldsmar — Furniture — Southern Furniture Co., capital $50,000, incptd. with G. A. McNally, Prest.; C. Stafe, Secy.-Treas.; will establish plant for mfre. of porch furniture from palm trees.

Ga., Macon—Sash and Doors—Central Sash & Door Co., W. C. Narshall, Prest., contemplate rebuilding plant burned at loss of $150,000.

Ga., Atlanta—National Stock Yards; Weill Bros.; Taylor, Herrin & Etheridge and Coggins & Co's buildings; Turner Stock Yards.

Ga., Seville—J. Q. Rutland and A. C. Wilson's stores; Dr. J. N. Dorminy's building; postoffice.

Ky., Bondurant—Coffins—A. B. Smith Lumber Co., C. M. House, in charge, will establish plant for mfr. of coffins.

Md., Baltimore — Phonographs — Voluma Corp., 2826 Huntington Ave., capital $100,000, incptd. by Edward H. Wertz, James J. and Louise M. Cook; mfre. phonographs, talking machines, etc.

Fire Damage.

Ala., Aliceville—Aliceville Electric Co's power plant; loss $2,500.

Ala., Banks—John Fincher's garage and Masonic temple building.

Ala., Sylacauga—Sylacauga Cotton Mills' warehouse.

Ala., Tuscaloosa—W. M. Brewer's residence at Holt.

Ark., Biggers—A. Schnabaum's cotton ginnery.

Okla., Haskell—Armstrong & Vann's cotton ginnery.

Ga., Albany—Albany Milling Co.'s plant; loss $50,000.

Ga., Americus—Jno. W. L. Daniel's grist mill, Sherlock's Alley; loss from $2,500 to $3,000.

Ga., Macon—Central Sash & Door Co.'s plant; loss $150,000.

Ga., Rome—Bowie Stove Foundry's plant; loss $100,000.

La., Alexandria—Alexandria Cotton Oil Co.'s seed house, hull house, ginnery, etc.; loss $100,000.

La., Cedar Grove—Cedar Grove State Bank; Jack Robin's soft drink plant; E. P. Sedan's restaurant; Miss K. E. McClurken's novelty shop; McGovern's Tea and Coffee Co.'s plant; Star Tailoring Co.'s plant; R. J. Davis & Son's real estate office; Roy grocery store, etc.; loss $50,000.

Miss., Biloxi—J. H. Johnson's store.

Mo., St. Louis—Meyer Bros. Commission Co.'s building at 818 N. Third St.

N. C., Albermarle—A. P. Harris' building

N. C., Burlington—Mid-City Cafe owned by Homer Moore; loss $10,000.

N. C., Fremont—Fremont Hotel owned by Mrs. I. F. Yelverton; loss $20,000.

N. C., Greensboro—Standard Table Co.'s second-floor of plant.

Okla., Oklahoma City—Warehouse and offices of Missouri, Kansas & Texas Ry., Frank Ringer, Ch. Engr., St. Louis, and Fort Smith & Western R. R., W. J. Rider, Ch. Engr.; loss $40,000.

S. C., Charleston—Virginia-Carolina Chemical Co.'s plant.

S. C., Chester—Jno. S. Stone's store in Crosbyville community.

S. C., Estill—Hamilton Ridge Lumber Co.'s box factory; loss $150,000.

S. C., Orangeburg—S. A. Blackmon's hardware store on Middleton St.

Tenn., Brownsville—Brownsville Cotton Oil Co.'s hull house, R. N. Bond, Mgr.; loss $20,000.

Tenn., Tullahoma—Tullahoma Motor Co.'s garage, owned by R. G. Coles.

Tex., Lockhart—Burdette Wells Hotel Co.'s 3 buildings; loss $25,000.

Tex., Munday—Munday Cotton Oil Co.'s hull house; loss $15,000.

Tex., Palestine—T. M. Clark's residence.

Tex., Spring Hill, R. D. from Dawson-Clarkson Leggett's ginnery; loss $12,000.

Tex., Wichita Falls—Missouri, Kansas & Texas, Ry.'s car shops; F. H. Ringer, Ch. Engr., St. Louis, Mo.

W. Va., Cheylan—Russel Garage, and Cheylan Grocery Co.'s store; loss several thousand dollars.

BUILDING NEWS

BUILDINGS PROPOSED

Apartment-Houses.

Fla., Fort Myers—F. B. Hough will erect 2-story frame apartment house on McGregor Blvd.; 34x60 ft.; 4 suites.

Fla., Tampa—E. M. Bergman, Ybor City, will erect $15,000 store and apartment building; 2 stories; 35x67 ft.; brick; Barrett composition roof; tile and wood floors; electric lights; M. Leo Elliott, Archt., will open bids Oct. 10.

Md., Cumberland—Geo. A. Bowman will erect 2-story brick apartment house at Goethe St. and Baltimore Ave.

Okla., Oklahoma City—J. E. Green will erect $18,000 brick apartment house at 116-18 E. Park Pl.

Tex., Dallas—Geo. W. Gibson will erect $24,000 apartment house at 3507-11 Hall St.; 12 rooms; brick veneer.

Tex., Dallas—Paul S. Erle will erect $14,000 apartment house at 2904 South Blvd.; 10 rooms; brick veneer; 2 suites.

Tex., Dallas—Lodge No. 44, I. O. O. F., will erect 12-story temple and office building at Pearl and Cabell Sts.

Tex., Dallas—Finnegan & Cammack will erect $20,000 apartment house at 4229-33 Lemmon Ave.; 32 rooms; brick veneer.

Tex., Fort Worth—M. Cohen will erect $12,000 apartment house at 921 W. 2nd St.

Association and Fraternal.

Ala., Fairview, Sta. Birmingham—Fairview Lodge No. 644, A. F. & A. M., will erect $32,000 temple; 3 stories and basement; 85x55 ft.; brick; tar and gravel roof; oak floors; steam heat, $3500; electric lights; $900; electric elevators, $3500; day labor. Address F. A. Preddy, 420 Raleigh St. (Lately noted.)

Ala., Mobile—Mobile Council No. 666, Knights of Columbus, Edw. Murnan, Edw J. Grove and others, Comm., will remodel and enlarge home at 602 Government St.

Fla., Panama City—Acme Lodge No. 222, F. & A. M., will erect $50,000 temple; 3 stories; 86x120 ft.; brick. (Lately noted.)

Ga., Atlanta—Salvation Army, 272 Luckie St., Ferd Braun, Staff Captain, will erect $50,000 building for hotel and social service center; 2 stories and basement; N. Thomoson, Archt., 122 W. 14th St., New York. (Previously noted.)

Tex., Beaumont—Jefferson Lodge No. 55, K. of P., will erect $40,000 temple; 60x105 ft.; 4 stories; brick and concrete; built-up felt and pitch and gravel roof; cement and wood floors; ventilators; single type elevator; architect not selected; bids opened about Jan. 1. (Lately noted.)

Tex., Dallas—Knights of Columbus, Wm. McCermick, Grand Knight, plan to erect $100,000 building at Ross and Harwood Sts.

Tex., Stephenville—Knights of Pythias plan to erect 2-story brick and hollow tile building.

Tex., Tyler—Ancient Free and Accepted Masons will erect $65,000 temple on North Bois d'Arc St.

Va., Lynchburg—Odd Fellows, R. D. Yancey, Prest., C. M. Mays, V.-P. of Corp. Board, will erect $80,000 temple on Church St., between 11th and 12th Sts.

W. Va., Matoaka—Odd Fellows Building Co. of Matoaka, C. J. Carter and others plan to erect Old Fellows Hall.

W. Va., Morgantown—Blue Lodge Masons are considering enlarging temple.

Bank and Office.

Md., Balimore—Israel Silberstein, Equitable Bldg., will erect office building at Park Ave. and Franklin St.; 44x95 ft.; brick and steel; considering 4 stories or more; plans by owner.

N. C., Charlotte—J. H. Cutter, Drs. Addison G. Brenzier, I. W. Faison and others organized the Professional Realty Co., with capital stock of $250,000; will erect 10-story building at N. Tryon and 7th Sts.

N. C., Wallace—Farmers Bank & Trust Co., W. T. Crump, second V.-P., plans to erect building; 1 story with high ceiling; cost about $10,000; tile floors; delco lights; metal ceilings; plaster board; vaults; vault lights; ventilators; steel sash and trim. (Lately noted.)

Tenn., Memphis—R. Brinkley Snowden is promoting company to erect 21-story office building at South Court Ave. and Maiden Lane; steel and terra cotta; reinforced concrete floors; Gothic design; first floor lobby, marble finish; 4400 sq. ft. floor space on each floor; 3 stores or banking rooms on first floor; cost with site, $1,000,000; Hanker & Cairns, Archts.

W. Va., Huntington—Guyandotte Bank, D. I. Smith, Chrmn. Bldg. Comm., will erect building; 30x60 ft.; reinforced concrete; built-up roof; terrazzo and concrete floors; vapor heat; hollow fireproof tile; wire glass; ventilators; Wm. Francis Diehl, Archt., 617 Robson-Prichard Bldg. (Lately noted.)

W. Va., Wheeling—Edw. Hexlett will remove 1 story of 3-story building at Main and 12th Sts., and erect 5 additional stories; 72x66 ft.; 50 office apartments; cost about $100,000.

Churches.

Ark., Little Rock—First M. E. Church, South, Rev. Philip C. Fletcher, Pastor, will erect Sunday school building on Center St.

Ark., Mena—St. Agnes Catholic Church, Rev. Father A. P. Gallagher, Pastor, is erecting $15,000 building; native stone.

Md., Hamden, Sta. Baltimore—Hamden M. P. Church, Rev. E. D. Stone, Pastor, will erect church and Sunday school building on Falls Rd., nr. 36th St.; colonial design; Port Deposit granite; church, 68x100 ft.; Sunday school, 40x70 ft.; John Freund, Archt., 1307 St. Paul St., Baltimore.

D. C., Washington — Christian Science Church will erect $15,000 building at 16th and

Meridian Sts.; 1 story; 65x 110 ft.; hollow tile and stucco; F. R. White, Archt., 1410 G St., N. W.

D. C., Washington—Jones Memorial M. E. Church, Rev. C. E. Queen, Pastor, 105 Bennings Rd., will erect $10,000 building; 1 story; 32x70 ft.; frame; Woodson & Vaughn, Archts., 1353 U St., N. W.

N. C., Chapel Hill—Herbert L. Cain, 12 N. 9th St., Richmond, Va., is preparing plans for $100,000 church and Sunday school; 3 stories and basement; brick and stone.

N. C., Charlotte — Knox Presbyterian Church will erect building; tapestry brick and limestone; oak interior trim; art glass; Chas. C. Hook, Archt.

S. C., Conway—Methodist Church, A. E. Goldfinch, Supt. of Sunday school, will erect $20,000 Sunday School building on Main St.; 3 stories; stucco; tile roof; 16 class rooms.

Tex., Beaumont—Temple Emanuel, H. A. Perlstein, Chrmn. Bldg. Comm., will erect $100,000 synagogue at Forrest St. and Broadway; A. S. Gottlieb, Archt., 101 Park Ave., New York.

Va., Charlottesville—First Methodist Church plans to purchase site at Jefferson and High Sts., and erect $200,000 building. Address The Pastor.

Va., Richmond—Battery Park Christian Church will erect $15,000 building at 2814 Moss Side Ave.; frame and stucco.

W. Va., Huntington—Methodist Episcopal Church, South, will erect building at Main and Water Sts.; 90x47 ft.; John Wroten, contr. for excavation. (Previously noted.)

City and County.

Ala., Troy—Auditorium, etc.—City will vote Oct. 24 on bonds, including $35,000 to erect auditorium and $10,000 for city hospital. Address The Mayor.

Ky., Louisville—Library—City, Geo. T. Settle, Librarian, will erect library building.

La., Kentwood—City Hall—Town Council will erect city hall on Ave. F.; pressed brick.

S. C., Greenville — Home — Greenville County, H. P. Dill, Supvr., will erect home; Beacham & Legrand, Archts.; bids opened Oct. 1.

Dwellings.

Ark., Harrison—R. W. Bass is erecting $20,000 residence about 6 mi. from Harrison on the Jefferson highway.

D. C., Washington—W. E. Frazier will erect $10,000 residence at 227 8th St., S. E.; 2 stories; brick.

D. C., Washington—Crandall Mackey will erect $15,000 residence at 2020 16th St., N. W.; 4 stories; brick.

D. C., Washington—Frank Murphy will erect $15,000 residence at 6100 33rd St., N. W.; 2 stories; brick.

D. C., Washington—Winfield Preston purchased property between 14th and 16th Sts. and Spring Rd. and Spring Pl.; plans to erect number of dwellings.

D. C., Washington—E. A. Smith will erect 2 frame dwellings at 3715-17 Keokuk St., N. W.; 2 stories; cost $13,000.

Fla., Arcadia—DeSoto Building & Development Co., J. D. Dishong, Mgr., will erect number of dwellings; cost $2000 to $5000 each; frame and brick; asphalt slate roof; hardwood floors; electric lights; plaster board; rolling partitions; wire glass; ventilators; steel sash and trim; plans and construction by owner. (Previously noted.)

Fla., Daytona—Jno. Camac will erect 2 dwellings; stucco. (See Stores.)

Fla., St. Augustine—Chas. H. Juckett purchased property on Cincinnati Ave. and plans to erect residences.

Fla., St. Augustine—St. Augustine Home Building Co., G. S. Meserve and others will erect number of bungalows and cottages; cost $3000 to $7500 each; hollow fireproof tile; metal ceilings; hardwood floors; plaster board. (Lately noted.)

Fla., West Palm Beach—Geo. Bothwell purchased property and plans to erect residence.

Ga., McDonough—J. S. Rodgers plans to erect residences and business houses.

Ky., Ashland—John E. David will erect $13,000 residence; 2 stories; 30x40 ft.; brick veneer; L. P. Hartsook, Archt., American Natl. Bank Bldg., Richmond; construction by owner.

Ky., Louisville—Adam Vogt plans to erect residences or apartments on Rosewood Ave.

Ky., Louisville—Helme Bruce, Jr., Marion E. Taylor Bldg., will erect $10,000 residence; 2 stories and basement; 26x40 ft.; stone and stucco; W. Earle Otis, Archt., Marion E. Taylor Bldg.; construction by owner, who awards separate contracts.

Ky., Louisville—C. C. Mengel, Jr., Dumesni St., between 11th and 12th Sts., will erect $35,000 residence; frame; E. P. Hutchings, Archt., Columbia Bldg.

Ky., Louisville—L. H. Stiles will erect $15,000 residence; 2 stories and basement; brick and stucco; Nevin, Wischmeyer & Morgan, Archts., 1317 Stark Bldg.

Ky., Louisville—Geo. M. Wolff will erect $15,000 residence; Nevin, Wischmeyer & Morgan, Archts., 1317 Starks Bldg.

Md., Baltimore—Cityco Realty Co., 2 E. Lexington St., will erect 10 two-story brick dwellings on Boarman Ave., nr. Reisterstown Rd.; cost $50,000; and 2 dwellings on Chestnut Ave., nr. Ardmore Way; cost $5000.

Md., Baltimore—Saml. Merican, 811 Whitelock St., will erect $10,000 residence on North Rd., nr. Cedar Rd.

Md., Baltimore — John C. Adelhardt, Pimlico Rd., nr. Ridgely Ave., will erect 5 two-story brick dwellings on Spencer Ave., nr. Krebs Ave.; cost $17,000.

Md., Baltimore—Jas. B. Yeatman, 4742 Park Heights Ave., will erect 6 two-story brick dwellings on Pall Mall Rd., nr. Wylie Ave.; cost $20,000.

Md., Baltimore—Montebello Park Co., 11 E. Fayette St., will erect 5 bungalows; 1 on Main Ave., nr. Woodland Ave.; 2 on Woodland Ave., nr. Main Ave.; 1 on Oakland Ave. and 1 on Main Ave., nr. Montebello Ter.

Md., Baltimore—Philip S. Morgan & Co., 12 E. Lexington St., purchased site on Carsdale St., between Liberty Heights and Brookline Aves. and plans to erect 3 bungalows and 2 two-story dwellings.

Mo., Kansas City—Kelly Investment Co. will erect 4 dwellings at 3529-33 Bellefontains Ave. and 3 dwellings at 3522-26 Benton Blvd.; cost $24,500.

Mo., Kansas City — W. F. Fleming will erect $15,000 residence at 5401 Oak St.

N. C., Charlotte—E. E. Boyce will erect $10,000 residence on E. Moreland Ave.; 9 rooms.

N. C., Charlotte—J. D. Hunter will erect $10,000 residence on Queens Rd., Myers Park; 12 rooms.

N. C., Charlotte—H. C. Sherrill Co. will erect 5 dwellings; 1, four rooms; 1, seven rooms and 3, six rooms; cost $23 200.

S. C., Columbia—J. C. Townsend will erect $12,500 dwelling at 1620 Green St.; 10 rooms; brick and tile.

Tex., Dallas—Z. E. Marvin will erect $20,000 residence at 3521 Turtle Creek Blvd.; 9 rooms; brick veneer.

Tex., Dallas—J. A. Traylor will erect 4 six-room frame dwellings at 615, 19, 23, 27 Brooklyn St.; cost $14,000.

Va., Norfolk—A. L. Bramble will erect residence at Graydon Ave. and Langley Rd.; 2 stories; 50x40 ft.; B. F. Mitchell, Archt., Seaboard Bank Bldg.

Va., Richmond—G. B. Boatwright will erect residence and garage at 3013 Seminary Ave.; 2 stories and attic; frame; cost $15,800.

Va., Richmond—J. Lee Davis and others will erect 2 two-story brick dwellings at 2420-22 North Ave., Barton Heights; cost $15,000.

Va., Richmond—H. A. Phillips will erect 10 brick dwellings on Chaffin St., between Mulberry and Robinson Sts.; cost $55,000.

Va., Roanoke—Jas. W. Hatcher will erect $12,000 residence; 2 stories; 10 rooms and bath; brick veneer; slate roof; oak floors; hot water heat; electric lights; G. R. Ragan, Archt.; bids opened Oct. 10.

Va., Roanoke—C. B. Patterson will erect $12,000 residence; 10 rooms and bath; 2 stories; 38x40 ft.; hollow tile and stucco; G. R. Ragan, Archt.

Hospitals, Sanitariums, Etc.

Ala., Troy—City will vote Oct. 24 on $10,000 bonds for hospital. (See City and County.)

D. C., Washingtotn—Sisters of Visitation, of Georgetown, will erect $15,000 infirmary, 2 stories; brick and stone.

Md., Laurel—Brightwood Sanitarium, R. E. Walker, Continental Trust Bldg., Washington, D. C., will erect $75,000 administration building; 5 stories; 50x74 ft.; brick; stone and concrete; Stern & Tomlinson, Archts., Continental Trust Bldg., Washington.

N. C., Mt. Airey—Dr. M. S. Martin will erect 20-room annex to Memorial Hospital; granite.

Tex., Dallas—Hella Temple, Ancient Arabic Order Nobles of the Mystic Shrine appropriated $100,000 to erect hospital for crippled children. Address The Potentate.

Hotels.

Ala., Carbon Hill—J. S. Shannon, Birmingham, will erect 2-story hotel; 50x140 ft.

Ala., Gadsden—Bellevue Club-Hotel Co., Loui Hart and others, will erect $40,000 building for hotel and club, previously noted; 4 stories; 100 rooms; frame; shingle roof; wood and tile floors; A. D. Simpson, Archt.; day labor. (See Machinery Wanted—Elevator; Heaters.)

Fla., Daytona Beach—Jno. Camac will erect store and hotel building; 16x60 ft.; 4 stores on first floor; 50 hotel rooms on 2nd and 3rd floors. (See Stores.)

Fla., Jacksonville—Jas. K. Stathis will erect 5-story hotel on Forsyth St. between Julia and Cedar Sts.; reinforced concrete; cost about $75,000.

Ga., Columbus—Roy E. Martin will remodel Banks Building for hotel of 40 rooms.

Ga., Indian Springs—T. W. Hooks and associates will rebuild Wigwam Hotel lately noted burned; 60 rooms with private bath; concrete; steam heat; also erect number of cottages.

Ky., Frankfort—Capital Hotel Co., S. French Hoge, Prest., will erect 4-story hotel; 80 rooms, reception room, ball room, etc.; Frank L. Packard, Columbus, O., and L. L. Oberwarth, Frankfort, Archts.

Md., Frederick — Frederick Hotel Co., organized; Emory L. Coblentz, Gen. Chrmn., Executive Comm.; acquired City Hotel property and 2 properties adjoining at Patrick and Court Sts.; plans to erect 165-room fireproof hotel and use City Hotel as annex of 40 rooms; cost about $900,000.

S. C., Columbia—J. L. Mimnaugh Estate, A. C. Tobias, representative, will improve Imperial Hotel; construct front, remove balconies extending over Main St., remodel interior, plumbing, etc.

Tenn., Ducktown—Chas. E. Taylor, Ducktown Bank, will erect $15,000 hotel; 2 stories and basement; brick; Mr. Watson, Archt., Tennessee Copper Co., Copper Hill.

Miscellaneous.

Ga., Griffin—Orphanage—Odd Fellows will erect Daniel Memorial Orphanage; cost $50,000; M. J. Daniel and others, committee.

La., Shreveport—Restaurant—H. H. Prescott will erect building on Milam St. for restaurant; 1 story; brick; cost $10,000.

Mo., Hollister—Assembly—Presbyterian Assembly of Southwest, G. P. Baity, Prest., 3829 Baltimore St., Kansas City, will erect $20,000 building; stone and stucco; yellow pine floors; electric lights; Owens & Payson, Archts.; bids opened Jan. 1, 1922. (Lately noted.)

N. C., Asheboro—Fair—Randolph County Fair Assn. will erect exhibit building; 30x150 ft.; also 30 to 40 stalls for cattle.

Tenn., Chattanooga — Museum — Gausnall & Crutchfield, 1242 S. Volunteer Life Bldg., prepared plans for $10,000 museum; 1 story and basement; stucco on hollow tile.

Tenn., Jackson—Ball Park—Jackson Baseball Assn. will build baseball park and athletic field near Lancaster Park; cost $20,000.

Va., Petersburg—Clubhouse—Petersburg Country Club, W. L. Zimmer, Chrmn Bldg. Comm., Mechanics Bldg., will erect $30,000 clubhouse; 2 stories; brick and frame.

W. Va., Princeton — Clubhouse — Mercer Country Club, L. P. Hardy, Prest., will erect $50,000 clubhouse; construct 18-hole golf course 6 or 8 tennis courts and open air swimming pool.

Railway Stations, Sheds, Etc.

S. C., Belton—Piedmont & Northern Ry., A. D. Frye, Supt., Greenville, will erect depot.

Tex., Poth—San Antonio & Aransas Pass R. R., L. Andrews, Ch. Engr., San Antonio, will erect hollow tile combination freight and passenger depot. (See Tex., Yoakum.)

Tex., Yoakum—San Antonio & Aransas Pass. R. R., L. Andrews, Ch. Engr., San Antonio, will erect hollow tile passenger depot; cost $11,000; also hollow tile combination freight and passenger depot at Poth, Tex.; cost $8,300; bids opened Oct. 5. (Previously noted in part.)

Schools.

Ala., Bessemer—City, R. C. Jones, Mayor, will issue $100,000 school bonds.

Ala., Troy—City votes Oct. 24 on $15,000 bonds to erect and repair schools. Address The Mayor.

D. C., Washington — District Commissioners, Room 509, District Bldg., will receive bids until Oct. 26 to erect high school No. 176; separate bids on building, heating and ventilating, plumbing and electric lighting; for detailed information apply to Room 427, District Bldg.; Albert Harris, Municipal Archt.

Ga., Claxton—Claxton School Dist. Board of Trustees, P. M. Anderson, Chrmn., will receive bids until Oct. 18 (extended date) to erect school; separate bids for heating; 8 class rooms and auditorium; brick and hollow tile; tin roof; wood floors; 1-pipe steam heating system; plans and specifications at office Atlanta Builders' Exchange; Willis Irvin, Archt., Lamar Bldg., Augusta; P. M. Anderson, Claxton; following contractors estimating: L. R. Blackburn, Statesboro; Artley & Co., Savannah; W. H. Little, Cordele; I. A. & J. S. Brannen, Metter; Jno. T. Rogers & Co., Vidalia; Holley Construction Co., Augusta; Lawrence Construction Co., Augusta; King Lumber Co., Charlottesville, Va.

Ga., Dalton—Board of Education, Frank Manly, Chrmn., plans to call election on $80,000 bonds for repairs and extensions to schools and erection of high school.

Ga., Statesboro—City, J. L. Renfroe, Mayor, will receive bids until Oct. 19 (extended date) to erect high school; separate bids for heating; brick and hollow tile; tin roof; wood floors; 1-pipe steam heating system; plans and specifications at office Willis Irvin, Archt., Lamar Bldg., Augusta; Builders' Exchange, Atlanta; J. L. Renfroe, Mayor, Statesboro; following contractors estimating: King Lumber Co., Charlottesville, Va.; L. R. Blackburn, Statesboro; Artley & Co., Savannah; W. H. Little, Cordele; I. A. & J. S. Brannen, Metter; Jno. T. Ragan & Co., Vidalia; Holley Construction Co., Augusta; Lawrence Construction Co., Augusta. (Lately noted.)

Ky., Richmond—City Board of Education, J. Howard Payne, Clk., will erect 20-room school; 2 or 3 stories; brick; cost $100,000; bids opened Oct. 12; plans and specifications at office C. C. & E. A. Weber, Archts., Third and Walnut Sts., Cincinnati, O. (Lately noted to open bids Oct. 17.)

La., Shreveport—Caddo Parish School Board will erect 4 schools; will sell $470,000 bonds. (Previously noted.)

Md., Baltimore—Johns Hopkins University, Dr. Frank J. Goodnow, Prest., will erect first of 4 dormitories at Homewood; accommodate 140 men and include dining room, commons room, sleeping rooms, etc.; brick; Edw. L. Palmer, Jr., Archt., 513 N. Charles St.

Md., Cumberland—Board of Education will erect colored grade school; 2 stories and basement; 60x100 ft.; brick; T. W. Biddle, Jr., Archt., McFarland Bldg.

Md., Westminster—School Board, Prof. M. Unger, Supt., will erect high school; 2 stories and basement; 80x160 ft.; brick; cost $175,000; Bernard E. Starr, Archt., Spooner Bldg., Harrisburg, Pa.

Miss., Union—Union Consolidated School Dist. voted $10,000 bonds. Address Dist. School Trustees.

Mo., Springfield—City Board of Education will erect intermediate high school on S. Jefferson Ave., one of three to be constructed for which $600,000 bonds are available. (Previously noted.)

N. C., Durham—City Board of Education will erect 2-story brick and concrete school; cost $150,000; also 3-story brick and concrete building; cost $325,000; bids opened Oct. 10; plans and specifications at office Milburn, Heister & Co., Archts., Washington, D. C., and Durham; W. B. Ittner, Consit. Archt., Board of Education Bldg., St. Louis. (Lately noted.)

N. C., Raleigh—Building Committee, State School for Blind, R. S. Busbee, Chrmn., will receive bids at office G. E. Lineberry, Supt., until Oct. 25 to erect superintendent's residence, addition to administration building, 3 cottages, boiler house and laundry building; also tunnels connecting buildings; work includes furnishing labor, material and equipment; plans and specifications at offices Mr. Lineberry, and Jas. A. Salter, Archt.

N. C., Supply—Brunswick County Board of Education, Southport, will consolidate 10 districts to be known as Supply High School Dist. and erect $40,000 building; 2 stories; 10 classrooms, auditorium, work shops, etc.; brick; Jas. F. Gause, Archt., Wilmington, will supervise construction.

N. C., Warrenton—Board of Education will erect high school for which $100,000 bonds were voted; 3 stories; brick, hollow tile, concrete steel, terra cotta and stone; Barrett roof; hardwood and concrete floors; mechanical heating and ventilating; electric wiring; plumbing; bids opened Oct. 7; C. Gadsden Sayre, Archt., Anderson, S. C. (Lately noted to open bids Sept. 30.)

Okla., El Reno—Board of Education, L. K. Butts, Secy., will erect addition to Junior High School. (Previously noted to erect new building.)

Okla., Henryetta—Methodist Espiscopal Church, South, will erect Henryetta Educational and Social Institute; 90x90 ft.; 2 stories and basement; brick walls; hollow fireproof tile; wood partitions; composition roof; hardwood and concrete floors; ornamental terra cotta; rolling partitions; steam heat; electric lights; cost $65,000; plans ready about Nov. 1. Address Raymond Kerr, Archt., 23 Morgan Bldg. (Lately noted under Churches.)

Tenn., Livingston—Livingston Academy, L. E. Gurrett, Prest., will erect $60,000 building; 2 stories and basement; brick; wood roof trusses; C. A. Ferguson, Archt., Nashville.

Tenn., Mount Pleasant—Board of Education, Harry Hill, Chrmn. Bldg. Comm., will erect $70,000 high school; 157x118 ft.; brick; stone trim; reinforced concrete slab floor and roof construction; Geo. Waller, Archt., Independent Life Bldg., Nashville. (Lately noted.)

Tenn., Nashville—Vanderbilt University, J. H. Kirklan, Cancellor, will erect memorial hall; 3 stories and basement; brick, stone and reinforced concrete; slab floor and roof construction; cost $250,000; H. C. Hibbs, Archt., Fourth and First Natl. Bank Bldg. (Lately noted.)

Tex., Amarillo—School Board called election Oct. 25 on $450,000 bonds; $350,000 to erect high school and $100,000 to equip building and erect ward school in San Jacinto Hts.

Tex., Cisco—Board of Trustees will receive bids until Oct. 21 to erect brick and concrete high school; cost $175,000; plans and specifications at office Robertson & Griesenbeck, Archts., Southwest Life Bldg., Dallas. (Lately noted.)

Tex., Fort Worth—School Board will erect $60,000 building at Sycamore.

Tex., Rockdale—School Board will erect reinforced concrete high school and brick school for negroes; bids opened Sept. 27; C. H. Page & Bro., Archts., Austin. (Lately noted).

W. Va., Charleston—Board of Education will erect addition to Garnet School on

Jacob St.; several class rooms and gymnasium; fireproof; brick and steel; cost $25,0000; also erect addition to Lincoln School on West Side; 24x60 ft.; brick; cost $8000.

Tex., Stamford—Board of Education will erect high school building on old Stamford College property.

Va., Portsmouth—Board of Education, H. A. Hunt, Supt., will erect 14-room addition to Woodrow Wilson High School; also 8-room and auditorium addition to Jefferson Street School; brick; slag roof; Chas. M. Robinson, Archt., Times Dispatch Bldg., Richmond. (Lately noted.)

Va., Spottswood—Board of Education, S. F. McClure, Chrmn., will erect grade school; 2 stories and basement; 56x33 ft.; frame and stucco; concrete foundation; Stanhope S. Johnson, Archt., Peoples Bank Bldg., Lynchburg.

Stores.

Ala., Carbon Hill—D. H. Brasher will erect brick building at Front and Galleway Sts.; 2 stories; 50x120 ft.

Ala., Carbon Hill—S. A. Shapiro will erect building; brick.

Ala., Jacksonville—Robt. Ferguson will erect building; brick.

Ala., Jacksonville—Geo. King will erect building on Jacksonville Quadrangle.

Ala., Jacksonville—C. A. Whitmore will erect brick business building on Jacksonville Quadrangle.

D. C., Washington—Speiden & Speiden, 1423 New York Ave., N. W., prepared plans for alterations to 2 buildings for stores and offices; cost $20,000.

Fla., Daytona Beach—Jno. Camac will erect auto sales room, 50x135 ft.; garage 50x85 ft.; 2 stores 18x60 ft.; 4 stores 16x60 ft.; 2 stores 18x71 ft. with 50-room hotel on 2nd and 3rd floors; 4 stores 18x100 ft.; 2 stucco dwellings; total cost $100,000; brick, hollow fireproof tile, ornamental terra cotta and interior tile; tile and felt roof; tile, hardwood and concrete floors; ventilators; plaster board; Jno. P. Prettyman, Archt., Daytona; construction by owner who may be addressed.

Fla., Lakeland—M. Roth will remodel and erect 120-ft. extension to Cowdery Building on E. Main St.; 2 stories.

Ga., Griffin—W. H. Newton will erect brick store on 8th St. between W. Solomon and W. Taylor.

La., Baton Rouge—Samuel Crocado, Naples, will erect brick store on Plank Rd., Rosalie Park.

Mo., Kansas City—J. W. Flanagan will erect 3-story brick and concrete business building at 2617-19 McGee St.; cost $18,000.

N. C., Greensboro—Huntley-Stockton Hill Co., Geo. L. Stansbury, V.-P. and Gen. Mgr., will erect $150,000 building on N. Elm St.; 35x30 ft.; 6 stories and basement; 40 offices on top floor; fireproof; elevators.

N. C., Greensboro—Transon Hat Co., 198 N. Davie St., will erect 3-story building on E. Sycamore St.; 25x150 ft.; steam heat.

S. C., Great Falls—Republic Cotton Mills, R. S. Mebane, Prest., will erect 15 or more store buildings; brick and concrete; plate glass fronts; electric lights; waterworks and sewerage.

Tenn., Johnson City—Adam B. Crouch and others will erect 2-story business building; 60x100 ft.; cost $16,000.

Tex., Dallas—Collins, Young & Bell will erect 2-story brick store at 3420-22 Main St.; cost $20,000.

Va., Graham—W. B. Morton & Co. will erect $20,000 department store; 52x63 ft.; brick; maple floors; metal ceilings; ventilators; hot water heat, $2000; electric lights, $7000; Gary & Sheffy, Archts., Bluefield, W. Va.; construction by force account under supervision of W. B. Morton who may be addressed. (See Machinery Wanted—Store Front; Plate Glass; Girders, Posts, etc.)

Va., Richmond—M. B. Staples will erect brick store at 614-16 Hull St.; cost $30,000.

Theaters.

Ark., Horatio—S. R. Halliday will erect brick concrete building for motion picture.

Ky., Lexington—Fred Levy, M. Switow, Louisville, and others are reported to erect $200,000 motion picture theater on E. Main Street.

Ga., Andersonville—Easterlin Bros. will erect cotton warehouse to replace burned theater.
structure.

Tenn., Memphis—Stryker Knot-N-Wood Products Co., G. B. Stryker, Prest., will erect warehouse and storeroom in connection with plant.

Warehouses.

BUILDING CONTRACTS AWARDED

Apartment Houses.

Va., Richmond — Richmond Apartment Corp., 2510 W. Main St., will erect $40,000 apartment house at 12 S. Boulevard; 3 stories; 36x98 ft.; 6 suites; brick; slag and slate roof; oak floors; steam heat, $2400; electric lights, $1000; Davis Bros., Inc., Archts.-Contrs., 2510 W. Main St. (Lately noted.)

Ky., Newport—Louis R. Brauntz, 4th and Washington Sts., will erect $20,000 apartment house; 27x59 ft.; 3 stories and basement; concrete and brick; gravel roof; hardwood, yellow pine and concrete floors; hot water heat, $1600; electric lights; ventilators; Louis H. Wilson, Archt., 10 W. 4th St.; Chas. Ware, Contr., 320 E. 4th St. (Lately noted.)

Md., Baltimore—Frank Carozza, 5209 York Rd., will erect $10,000 apartment house at 5207 York Rd.; 4 stories; brick; 60x44 ft.; slag roof; steam heat; Wm. A. Foreman, Archt., 5843 York Rd.; E. T. Foreman, Contr., 125 N. High St. (Lately noted.)

Va., Norfouk—M. C. Harding, 111 31st St., will erect 2-family apartment house; cost $12,000; J. T. Sawyer, Contr., 27th St.

Va., Norfolk—Kritseler & Peters will erect 3-story store and apartment building at 35th St. and DeBree Ave.; cost $40,000; 10 suites; brick; L. Peters, Contr.

Va., Richmond—R. M. Anderson & Co., Lyric Bldg., have contract to erect 2-family apartment house on Monument Ave.; 29x87 ft.; cost $15,000.

Va., Richmond—H. R. Weisiger will erect $16,000 apartment house; 28x80 ft.; brick; 2 suites; tin roof; oak floors; hot water heat; electric lights; R. M. Anderson & Co., Archts.-Contrs., 202 Lyric Bldg. (Lately noted under Dwellings.)

W. Va., Clarksburg—D. E. McNicol, Jr., will erect $10,000 apartment house on Buckhannon Ave.; 5 stories; 9 rooms; Holmboe & Roger, Contrs.

Association and Fraternal.

Ga., Augusta — Central Young Men's Christian Association, J. G. Belding, Chrmn. Bldg. Comm., will erect $220,000 building; 4 stories and basement; brick and concrete; composition roof; cement, tile and composition floors; hollow fireproof tile; ornamental terra cotta; interior tile; metal doors; vault lights; ventilators; steel sash and trim; Murphy & Dana, 331 Madison Ave., New York and Scroggs & Ewing, Lamar Bldg., Augusta, Asso. Archts.; North-Eastern Const. Co., Contr., 1111 Commercial Bank Bldg., Charlotte, N. C. (Lately noted.)

Md., Baltimore—Boumi Temple, A. A. O. N. M. S., Edwin H. Brownley, Potentate, Calvert Bldg., will erect temple at Howard St. and Druid Hill Ave.; site, 110x200 ft.; fireproof; steel skeleton frame and truses; concrete foundation; reinforced concrete floors and roof; floors finished in marble, tile and wood; Moslem dome; first story of stone; second to fifth floors treated in buff brick masonry, with stone columns and trimmings; upper stories enclosing ball rooms, banquet rooms, etc.; 2 stories of brick and terra cotta; building will contain theater, 3 corner stores and offices; cost about $700,000; Otto G. Simonson, Archt., Maryland Casualty Tower; Consolidated Engineering Co., Contr., Calvert Bldg. (Previously noted.)

N. C., Charlotte—Young Men's Christian Association, J. M. Harry, Chrmn. Bldg. Comm., will erect fifth-story addition to building; cost about $15,000; C. C. Hook, Archt.; J. A. Jones, Contr.

W. Va., Fairmont—C. E. Hutchinson will erect annex to Y. W. C. A. building; 2 stories; 28x45 ft.; hollow tile; first floor, cafeteria; second, assembly room; J. W. Snowden, Contr.

Bank and Office.

D. C., Washington — United Press Association will remodel 5-story building at 1325 New York Ave.; Milburn, Heister & Co., Archts.; J. L. Parsons, Jr., Contr.

D. C., Washington—Albemarle Investment Co. will erect $200,000 office building at 806-12 18th St., N. W.; 7 or 10 stories; 60x150 ft.; reinforced concrete; Waddy B. Wood, Archt., 816 Conn. Ave., N. W.; Geo. A. Fuller Co., Contr., Munsey Bldg. (Lately Noted).

Fla., Bradentown—First Natl. Bank, John T. Campbell, Cashr., will erect $100,000 building for bank, stores and offices; 2 stories; 86x100 ft.; stone and face brick; steel columns and beams; composition roof; marble, ceramic tile and wood floors; hot water heat; ornamental terra cotta; safes; interior tile; metal doors; vaults; vault lights; ventilators; steel sash and trim; Francis J. Kennard, Archt.; Carman Co., Contr., P. O. Box 955, both Tampa. (Lately noted.)

Fla., West Palm Beach—Mrs. Margaret E. Gosman will erect 2-story store and office building at Poinsettia and Evernia Sts.; hollow tile, cement and stucco; 50x86 ft.; 3 stores on first floor; 16 offices above; O. J. Williams, Archt.; H. C. Daniels, Contr. (Lately noted.)

La., New Orleans — Canal-Commercial Bank will erect $16,000 branch building; Favrot & Livaudais, Archts.; Geary & Oakes, Contrs. (Previously noted.)

N. C., Elkin—Bank of Elkin will erect building on E. Main St.; contract let.

Okla., Tulsa—Atlas Life Insurance Co., H. O. McClure, Prest., will erect 12-story building; 100x140 ft.; steel frame; built-up roof; reinforced concrete floors; vacuum steam heat; public service lights; gearless trac-

tion elevators; hollow fireproof tile; ornamental terra cotta; interior tile; metal doors; vaults; wire glass; mail chutes; Rush, Endicott & Rush, Archts., 101 Lorton Bldg.; St. Louis Structural Steel Co., St. Louis, Mo., contr. for steel frame; Brickner-Garbett Co., Tulsa, contr. for excavation, footings and foundations; other contracts will be let in October. (Previously noted.)

Tenn., Bristol—Bank of Bristol, Robt. L. Pennington, V.-P., and Chrmn. Bldg. Comm., will erect $75,000 building at State and 6th Sts.; 30x140 ft.; fireproof; brick, concrete and granite; Indiana limestone; terra cotta trim; composition roof; tile and marble floors; steam heat; electric lights; 28-ft. ceilings; burglar proof steel lined vault with 500 safety boxes and 4 money chests; C. B. Kearfott, Archt., Bristol; J. P. Pettyjohn & Co., Contrs., Lynchburg, Va. (Previously noted.)

Va., Roanoke—W. W. Boxley will erect $250,000 office building; 45x115 ft.; 7 stories and basement; steel frame, hollow tile and concrete; Barrett roof; composition floors; E. G. Frye, Archt.; J. P. Pettyjohn & Co., Contrs., Lynchburg. (Lately noted.)

Va., Richmond—West End Bank will alter and erect addition to building; 2 stories; 25x70 ft.; plans by owner; Davis Bros., Contrs., 2510 W. Main St.

Churches.

Ala., Florence—First M. E. Church, South, M. M. Striplin, Chrmn. Bldg. Comm., will erect $92,300 building; brick and frame; plans by Dr. J. A. Baylor, Church Extension Board of M. E. Church, South, Louisville, Ky.; E. B. Tate, Contr., Florence. (Lately noted.)

Ark., Van Buren—Baptist Church will erect 2-story addition; seating capacity of 900; John Blevins, Contr.

D. C., Washington—All Souls Church, Dr. E. G. Pierce, Pastor, 1748 Lamont St., N. W., will erect building on 16th St.; Coolidge & Shattuck, Archts., 89 State St., Boston, Mass.; Boyle-Robertson Constr. Co., Contr., Evans Bldg., Washington. (Previously noted).

N. C., Charlotte — Dilworth Methodist Church, Rev. L. A. Falls, Pastor, will erect building; C. C. Hook, Archt.; contract let.

N. C., Lenoir—First Presbyterian Church is erecting $20,000 addition; Benton & Benton, Archts., Wilson; Melton & Hartely, Contrs., Lenoir.

Tex., Austin—St. Mary's Church will erect $17,000 parish house lately noted; 2 stories and basement; hollow tile; asbestos shingle roof; edge grain pine floors; Giesecke & Harris, Archts.; Brydson Lumber & Construction Co., Contr. (See Machinery Wanted—Shingles (Asbestos).

City and County.

W. Va., Huntington—Fire Stations—City, C. W. Campbell, Mayor, will erect 2-story brick fire station at Walnut Hills and addition to St. Cloud fire station; W. B. Smith, Archt., Robson-Prichard Bldg.; E. H. Berry, Contr. for addition at $1,506; H. Campbell & Sons, Contrs. for building at $9,254. (Lately noted.)

Dwellings.

D. C., Washington—Bancroft C. Davis, Auburndale, Mass., will erect $50,000 residence; 3 stories and basement; 30x72 ft.; brick and wood; slate roof; hardwood floors; electric lights; J. D. Laland & Co., Archts., 41 Mt. Vernon St., Boston, Mass.; D. E. Nichol, Contr., 509 Continental Trust Bldg., Washington.

D. C., Washington—G. Ashmead Fuller, Wardman Park Hotel, will erect $25,000 residence and garage at 2402 Wyoming Ave.; 3½ stories and basement; 38x40 ft.; T. J. D. Fuller, Archt., 2317 Ashmead Pl.; Harry Wardman, Contr., 1430 K St., N. W. (Lately noted.)

D. C., Washington—Mrs. A. G. Hansley, Mt. Vernon Seminary, will erect $30,000 residence; 2 stories and attic; 66x45 ft.; Wesley S. Bessell, Archt., 56 W. 45th St., New York; Boyle-Robertson Constr. Co., Contr., Evans Bldg., Washington.

D. C., Washington—Waggeman & Brauner, 914 15th St., N. W., will erect 3 dwellings; cost $21,000; 2 stories; 18x33 ft.; Claude N. Norton, Archt., Maryland Bldg.; H. W. Ferry, Contr., R. F. D. No. 1 Rosslyn, Va.

D. C., Washington—Fred Spicer, 660 Columbia Ave., will erect $15,000 residence; 2 stories; L. H. Warwick, Archt.; E. H. Moser, Contr., both Munsey Bldg. (Lately noted.)

D. C., Washington—Mrs. Guniberti will expend $11,000 to alter and erect addition to residence; 2 stories; 30x50 ft; Sonneman & Justeman, Archts., 734 15th St. N. W.; Brown & Hawkins, Contrs., 718 Rhode Island Ave., N. W.

Fla., Miami—A. C. Battelle will erect $20,000 residence; 7 rooms; Spanish type; John B. Orr, Contr. (Lately noted.)

Ky., Harlan—Dr. W. T. Cawood will erect $10,500 residence; 2 stories and basement; brick veneer; composition shingle roof; oak and tile floors; vapor heat, $1200; electric lights, $350; R. F. Graf & Sons, Archts., Knoxville, Tenn.; General Construction Co., Contr., Harlan. (Lately noted.)

Ky., Louisville—John Stair, 428 N. Main St., will erect $11,000 residence; 2 stories and basement; 33x33 ft.; C. J. Merriwether, Archt.-Contr., 308 Starks Bldg.

La., New Orleans—A. F. Bennett will erect 2-story double residence at Jefferson Davis Parkway and Banks St.; cost about $10,000; Napoleon Constr. Co, Contr.

Md., Baltimore—Clinton Summers, 101 Roland Ave., will erect $25,000 residence and garage at Greenway and Bedford Pl.; 2½ stories; stone; 47.6x44.2 and 22x24.8 ft.; slate roofs; steam heat; E. L. Palmer, Jr., Archt., 513 N. Charles St.; Gladfelter & Chambers, Contrs., 36th St. and Roland Ave.

Md., Chevy Chase—Mrs. S. L. Heap will erect $15,000 residence and garage; 2½ stories and basement; 33x60 ft.; Delos Smith, Archt., Union Trust Bldg.; H. S. Hatton & Co., Contrs., 1218 Randolph St., N. W.; both of Washington, D. C.

N. C., Charlotte—E. C. Griffith will erect 2 six-room dwellings on Queens Rd., Myers Park; cost $10,000; J. A. Williamson, Contr.

N. C., Charlotte—Jacob Binder will erect residence; tapestry brick; stone trim; tile and hardwood floors; vapor heat; Chas. C. Hook, Archt.; Blythe & Isenhour, Contrs.

N. C., Sanatorium—State Sanatorium will erect physician's residence; Chas. C. Hook, Archt., Charlotte; J. D. Stroud, Contr., Sanford.

N. C., Shelby—J. G. Dudley will erect 2 dwellings; cost $2500 to $10,000 each; 66x40 and 48x32 ft.; frame; shingle roof; pine, oak and concrete floors; hot water heat; city lights; interior tile; J. W. Branton, Contr. (Lately noted.)

S. C., Columbia—Julius Walker will erect $15,000 residence; 32x44 ft.; brick veneer; slate roof; rift pine floors; hot water heat, $1,000; lights, $300; plaster board; interior tile; Harold Tatum, Archt., Arcade Bldg.; J. C. Heslep, Contr., 2129 Devine St. (Lately noted.)

S. C., Columbia—Dr. P. V. Mikell will erect $24,000 residence; 34x65 ft.; brick veneer; green slate or tile roof; oak, concrete and rift pine floors; hot water heat, $2000; lights, $300; interior tile; Harold Tatum, Archt., Arcade Bldg.; J. C. Heslep, Contr., 2129 Devine St. (Lately noted).

S. C., Columbia—Eureka Development Co., Julius H. Walker, Gen. Mgr., is Contr. for $6000 residence for Shepard Pender, $9000 residence for John Crews and $7000 residence for Anthony Craig; one, 5 rooms and two, 7 rooms; frame; composition roof; rift pine floors; Caloric pipeless furnace, $350; city lights; Harold Tatum, Archt. (Lately noted.)

Va., Norfolk—Fain Constr. Co., Bank of Commerce Bldg., is Contr. for $12,000 residence; 2 stories; 22x38 ft.; plans by owner.

Va., Norfolk—A. W. Brock Trust Co. of Norfolk, Cranby St. and City Hall Ave., will erect $12,000 residence; 2 stories; 30x44 ft.; B. B. Spigel, Archt., 112 E. Main st.; B. L. Nichols, Contr., 217 35th St.

Va., Norfolk—W. T. Addison, 300 Water St., will erect $14,000 residence; 2 stories; 40x34 ft.; Harvey Abrames, Archt., Arcade Bldg.; J. E. Johnson, Contr., Maury Crescent.

Va., Richmond—Col. John W. Williams, State Capitol Bldg., will erect several dwellings; 2 stories; 25x50 ft.; Marcellus Wright, Archt., American Natl. Bank Bldg.; C. H. Archer, Contr., 2515 Hanover Ave.

Va., Richmond—Wellington Development Corp., 2510 W. Main St., will erect 20 dwellings; cost $36,000; 16x35 ft.; frame; tin and slate roofs; pine floors; electric lights; Davis Bros., Inc., Archts.-Contrs., 2510 W. Main St. (Lately noted.)

Va., Roanoke—Sidney F. Small, 608 9th Ave., S. W., will erect $11,000 dwelling; 2 stories; 27x42 ft.; C. H. & E. B. Powers, Contrs., 421 8th Ave., S. W.

Government and State.

N. C., Greensboro—Post Office—Treasury Dept., Jas. A. Wetmore, Acting Supvr. Archt., Washington, D. C., will alter basement, first, second and third floors in post office; Northeastern Construction Co., Charlotte, contr. at $11,996. (Lately noted.)

Hospitals, Sanitariums, Etc.

N. C., Charlotte—Thompson Orphanage will erect $20,000 nursery and hospital; 2 stories; brick; J. A. Gardner, Contr.

Okla., Guthrie—Oklahoma Methodist Hospital, Rev. H. B. Collins, Ex. Secy., will erect $40,000 nurses home and training school lately noted; 3 stories; 44x91 ft., brick and tile; stone trim; Johns-Manville 5-ply roofing; maple and concrete floors; gas steam heat, $3100; city electric lights; hollow fireproof tile; plaster board; interior tile; wire glass; ventilators; steel sash and trim; Edw. Gahl, Archt.; J. C. Ibach, Contr., Ponca City. (See Machinery Wanted — Vacuum Cleaner; Gymnasium Equipment.)

Hotels.

D. C. Washington—Hamilton Hotel Corp., F. H. Smith Co., Financial Agt., 815 15th St., will erect 10-story hotel at 14th and K Sts. N. W.; 107x150 ft.; fireproof; reinforced concrete; 210 rooms with bath; J. H. DeSibour, Archt., Hibbs Bldg.; R. P. Whitty Co., Contr., Union Trust Bldg. (Lately noted.)

Tex., Beaumont—C. S. Lambie & Co., Gen. Contrs., to erect $650,000 hotel for Beaumont Hotel Co. let following subcontracts: Eugene

Ashe Electric Co., Fort Worth, electric work; Chas. Sutton, Fort Worth, plastering; Otis Elevator Co., New York, elevators; Southwestern Tile Co., Little Rock, Ark., tile and marble contract; Southern Structural Steel Co., San Antonio, fire escapes. (Previously noted.)

W. Va., Logan—Fred Haislip and Ben Tobin will erect 5-story hotel on Straton St.; fireproof; bath in all rooms; contract let.

Miscellaneous.

Md., Baltimore—Stable—Snesil Dairy Co., 1048 Granby St., will erect 3-story brick stable, 1139-45 Granby St.; 60x110 ft.; slag roof; cost $35,000; Stanislaus Russell, Archt., 11 E. Lexington St.; L. Ulmam, Contr., 418 Aisquith St.

Schools.

Ala., Holt—County Board of Education, Tuscaloosa, will erect $50,000 school; 2 stories and basement; brick and hollow fireproof tile; tar and gravel roof; rift pine and concrete floors; steel sash and trim; ventilators; steam heat; D. O. Whilldin, Archt., Birmingham; A. Laycock & Son, Contrs., Tuscaloosa. (Lately noted)

Ala., Mobile—Mobile County Board of School Commrs. will erect 2-story annex for toilet rooms; brick; concrete floors; C. L. Hutchisson, Archt.; Dan Jett, contr. at $17,000; L. J. Leahy, plumbing, $6,395. (Lately noted.)

D. C., Washington—Department of the Interior, F. M. Goodwin, Asst. Secy., will erect fireproof building for economics and dining hall at Howard University; 130x110 ft.; 3 stories; cut stone; terra cotta; tile roof; cement, wood and terrazzo floors; cost about $175,000; Hazel & Cassell, Archts., Washington; Consolidated Engineering Co., Contr., Calvert Bldg., Baltimore. (Lately noted.)

Fla., Ponce De Leon—Board of Education will erect $10,000 school; contract let.

Ga., Monticello—Board of School Trustees will erect $70,000 school; 2 stories; brick veneer; tin roof; hardwood floors; Robert & Co., Archts., Atlanta; West Point Iron Works, Contr., West Point.

La., Rayville—Richland Parish School Board will erect building; 182x140 ft.; 2 stories and basement; 25 class rooms; auditorium to seat 700 people; brick and stone; Barrett specification roof; yellow pine floors; metal ceilings; plaster board; ornamental terra cotta; ventilators; steam heat; electric lights; cost $114,032 exclusive of equipment; Edw. F. Neild, Archt., Shreveport; Mr. Brashear, Contr. (Lately noted.)

Md., Frederick—Hood College, Dr. E. S. Bromer, Prest., Bd. of Directors, will erect dining hall and dormitory; 207x48 ft.; brick; stone trim; slate roof; wood floors; steam heat; electric lights; freight elevator; also enlarge auditorium of Brodbeck Hall; 30x50 ft. extension; brick; wood floors; steam heat; electric lights; total cost $200,000; Hamme & Witman, Archts., York, Pa. Address Lloyd C. Culler, Frederick, Supervising Contr. who will build on sub-contract basis and act as agent. (Previously noted.)

Md., Greensboro—Carolina County School Board, E. H. Noble, Supt., Denton, will erect $50,000 high school; T shape; 80x58 ft.; 111 ft. over all; 2 stories and basement (will not finish basement at present time); brick; slag roof; wood floors; direct-indirect steam heat; ventilating system; 12 class rooms; Henry P. Hopkins, Archt., 347 N. Charles St.; Northeastern Constr. Co., Contr., Lexington Bldg., both of Baltimore; heating not included in general contract. (Previously noted.)

Mo., Belton—School Board will erect $65,000 high school; 111x95 ft.; brick and hollow fireproof tile; stone trim; metal ceilings and doors; Barrett specification roof; edge grain yellow pine and concrete floors; ventilators; vaults; J. H. Felt & Co., Archts., 800 Grand Avenue Temple, Kansas City. Address S. E. Shultz, Contr., Belton. (Lately noted.)

Mo., Kirksville—Dr. Geo M. Laughlin will erect $100,000 building for American School of Osteopathy; 96x100 ft.; fireproof; hollow tile; built-up roof; maple and cement floors; steel sash and trim; vaults; ventilators; Irvin Dunbar, Archt. Address L. F. Poehlman, Contr. (Lately noted.)

Mo., St. Louis—City Board of Education will erect Calvin M. Woodward School at Kingshighway Park and Alabama Ave.; 25 rooms; accommodate 1250 pupils; E. C. Gerhard Building Co., contr. at $254,900; Jno. W. Reinhardt Stair Co., millwork, $17,124; Sheehan Plumbing Co., plumbing, sewering and gas fitting, $13,203; D. F. Edwards Heating Co., heating and ventilating, $43,960; Eclipse Electrical Co., electric light wiring and fixtures, clocks, bells, telephone system, etc., $9,570.

N. C., Banners Elk—Board of Education will erect $30,000 school on Central Ave.; contract let.

N. C., Chapel Hill—School Board, N. W. Walker, Secy., will erect 3-room addition to Chapel Hill School; Chas. C. Hook, Archt., Charlotte; Salmon, Ship & Poe, Contrs. (Lately noted.)

N. C., Charlotte—Board of School Commrs., H. P. Harding, Secy., will erect Belmont Vocational School on Louise Ave.; 2 stories; 15 class rooms, shops and laboratories; fireproof; brick; cost $80,064; Chas. C. Hook, Archt.; Northeastern Construction Co., Contr.; Grinnell Co., heating at $6,049. (Lately noted.)

N. C., Hillsboro—Board of School Commrs. will erect high school; 2 stories; brick and stone; Milburn, Heister & Co., Archts., Union Savings Bank Bldg., Washington, D. C.; W. H. & T. H. Lawrence, Durham, N. C., contrs. at $78,570 exclusive of sewerage, water and other equipment. (Lately noted.)

Okla., Oklahoma City—Oklahoma City College, E. G. Green, Prest., 12th and Walnut Sts., will erect administration and gymnasium buildings; Gothic type; 2 stories; Wm. T. Schmitt, Archt.; Gross Construction Co., Contr.

S. C., Greenville—Greenville Woman's College Board of Trustees will erect Fine Arts building; American Colonial type; red brick trimmed with stone, marble and ornamental terra cotta; 120 ft. frontage; auditorium to seat 1000, music department with studios and practice rooms, departments of art and expression, literary society halls and domestic science department; install pipe organ; Beacham & LeGrand, Archts.; J. R. Owens, Contr. (Lately noted.)

Tenn., Columbia—City Board of Education will erect Andrews School annex; 2 stories; brick; Wall & Jeter, contrs. at $12,000. (Lately noted.)

Tenn., Knoxville—Board of Education, E. J. Frazier, Prest., will erect 2 rural schools, Chicutts Chapel and Parksville Rd.; 2 stories; cost $20,000; Manley & Young, Archts., Knoxville; Grover C. Lee, Contr., Cleveland.

Tenn., Mountain City—Johnson County High School Board, F. C. Daugherty, Secy., will erect high school; cost $26,000; C. B. Kearfott, Archt., 5th St., Bristol, Va.; Hunter Allen, Contr., Elizabethton, Tenn. (Lately noted.)

Tex., Galveston—Board of School Trustees Chas. Fowler, Prest., will erect 4 temporary school buildings; Coyle Bros., Galveston, and Crain Lumber Co., Houston, Contrs.

Va., Big Stone Gap—School Board will erect $40,000 building; R. B. McGeckin, Archt., Big Stone Gap; Chas. J. Kingsolver, Contr., Bristol.

W. Va., Berwind—Board of Education, E. M. Cooley, Dist. Supt. of Schools, will erect $38,000 school dormitory; 138x38 ft.; stone foundation; brick and hollow fireproof tile; slate roof; oak floors; metal ceilings; plaster board; steam heat; electric lights; Chas. P. Jamerson, Archt., Berwind; R. Mankin & Co., Contrs., Huntington. (Previously noted.)

W. Va., Gassaway—Otter District Board of Education, Claude Heater, Secy., will erect $85,000 high school; 3 stories; 100x150 ft.; stone, brick and tile; built-up composition roof; first floor concrete, others wood; steam heat; $12,000; electric lights; Albert Breternitz, Archts., Clarksburg; Garrett Building Co., Contr., Gassaway. (Lately noted.)

Stores.

Ala., Gadsden—Midgley & Irvin will erect 2-story business building on Broad St.; 25x100; stucco and plate glass front; cost $10,000; C. P. Smith, Archt. and Contr.

Ark., Pine Bluff—Mrs. A. E. Westbrook will erect brick veneer building on Cherry St., between 11th and 12th Sts.; contract let.

Fla., Vero—Miles McNeice will erect $17,000 building for automobile supplies; 50x50 ft.; concrete block and waterproof stucco; gravel roof; wood floors; electric lights; G. H. Harrison, Archt.; Even & Brunen, Contrs. (Lately noted.)

Md., Baltimore—Simon Levinson, 2303 Eutaw Pl., will expend $15,000 to improve building at 321 W. Baltimore St.; limestone front; install elevators, etc.; Smith & May, Archts.; Consolidated Engineering Co., both Calvert Bldg.

N. C., Winston-Salem—B. Schwartz will erect $20,000 building lately noted; 65x72 ft.; 3 stories; brick and hollow tile; built-up roof; rift pine floors; concrete basement; C. Gilbert Humphries, Archt.; Cleland & Griffen, Contrs.

S. C., Greenville—J. A. Bull Grocery Co. will $20,000 store on N. Main St.; 2 stories and basement; 50x60 ft.; brick; tar and gravel roof; rift pine floors; steel sash and trim; hand power elevator; Beacham & LeGrand, Archts.; Jamison & Morris, Contrs. (Lately noted.)

Tenn., Clarksville—Joe Goldberg, of Goldberg Amusement Co., will erect building at Third and Franklin Sts. for 10 stores; 219x95 ft.; brick, concrete and stone; Marr & Holman, Archts., Nashville; W. Manning, Contr., Clarksville.

Tex., San Angelo—Martin-Glover Co. will erect wholesale grocery and produce building at 4th and Chadbourne Sts. to replace structure lately noted burned; 80x200 ft.; basement, 80x112 ft.; brick and tile; Arthur R. Swartz, Archt.; Hugh Myers, Contr.

Warehouses.

Ark., Harrisburg—Poinsett County Sweet Potato Growers' Assn. will erect warehouse and curing plant; Lafe Collins, Contr.

La., New Orleans—Crane Co., Chicago, will erect building for New Orleans branch; main building 100x160 ft. and several small structures; pressed brick, hollow fireproof and interior tile; stone trim; Barrett specification roof; rift pine and concrete floors; metal doors; vaults; wire glass; ventilators; vault lights; steel sash and trim; steam heat; electric lights; Emile Weil, Archt., Whitney Bldg.; O. M. Gwin Construction Co., Contr., 812 Canal Commercial Bldg.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Air Compressor. — Tidewater Glass Mfg. Co., J. L. Welton, Prest., Norfolk, Va.—Bids until Nov. 1 on 500 ft. 50 lbs. pressure air compressor; second-hand, if in good condition.

Automobile Parts.—Auto Parts Co., 104 N. Front St., Baltimore, Md.—Prices on gears, axles, shafts, etc.

Barge (Steel).—Gilbert D. Von Phul, Carondelet Bldg., New Orleans, La.—Steel barge about 60 ft. long x 16 ft. wide x 4 ft. to 6 ft. deep.

Barrels.—See Refinery Supplies.

Boilers.—See Refinery Supplies.

Boiler.—Arctic Ice & Coal Co., Greensboro, N. C.—Second-hand 72-in. x 16-ft. boiler, must be butt strap boiler, triple riveted and stand inspection for 125 lb. steam pressure; state price together with location and full particulars.

Boiler.—John G. Duncan Co., Jackson and Central Sts., Knoxville, Tenn.—Dealers prices on second-hand 50 or 60 H. P. return tubular boiler, good for 100 or 125 lbs. steam.

Boiler.—John G. Duncan Co., Jackson and Central Sts., Knoxville, Tenn.—Jobbers prices on 50 to 60 H. P. standard return tabular boiler good for 100 to 125 lb. working pressure, subject to any good boiler inspection.

Boiler Fronts.—Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.—Bids until Oct. 5 to renew boiler fronts of 5 boilers at Bay View; Richard Gwinn, Register, City Hall; H. G. Perring, Chief Engr.

Bridge Construction.—State Road Dept., Tallahassee, Fla.—Bids until Oct. 6 to construct reinforced concrete culverts and concrete slab bridges; Federal Aid Project 11, 21, 22, 23 and 24; 118,967 lbs. steel reinforcement; plans, etc., on file, and with State Highway Engr.

Bridge Construction.—State Road Dept., Tallahassee, Fla.—Bids until Oct. 7 to build bridges and culverts on State Roads No. 2 as follows: State Road No. 2, Federal Aid Project No. 33, Burnet's Lake to Gainesville; all reinforced concrete culverts and concrete bridges; Federal Aid Project No. 26, extending from Lake City north to Suwannee river; plans, etc., on file, and with State Highway Engr.

Bridge Construction.—State Road Dept., Tallahassee, Fla.—Bids until Oct. 8 to build bridges on State Road No. 3, Putnam County; F. A. Project No. 18; plans, etc., on file and with State Highway Engr.

Bridge Construction.—State Road Dept., Tallahassee, Fla.—Bids until Oct. 7 to build bridges on State Road No. 4, Project No. 32, Nassau County from Duval county line north through Callahan; plans etc., on file, and with State Highway Engr.

Bridge Construction.—State Road Dept., Tallahassee, Fla.—Bids until Oct. 8 to build bridges on State Road No. 3, Volusia County, DeLeon Springs north to Putnam county line; plans, etc., on file and with State Highway Engr.

Bridge Construction. — State Highway Dept. Jefferson City, Mo.—Bids until Oct. 13 to construct 16 ft. and 20 ft. reinforced concrete slab span bridges on state road from Keytesville northward; 2 reinforced concrete abutments; Chariton County. State Aid Project 20,59; $3.263.50 and $2.912.20; A. W. Graham, State Highway Engr., Jefferson City; M. S. Hamick, Div. Engr., Macon, Mo.

Brick.—Cleland & Griffen, Winston-Salem, N. C.—Brick for 3-story store; 65x72 ft.

Brick Cleaning Machine.—Nathan Pollack, Cynthiana, Ky.—Names and addresses mfrs. of brick cleaning machine, operated by gasoline engine; could use second-hand machine.

Brick Machinery (Cement Sand). — J. L. McGehee Contracting Co., Tarboro, N. C.—Names and addresses mfrs. of mchy. to make cement sand brick.

Bridge Construction. — State Highway Comsn. of Alabama, Montgomery, Ala.—Bids until Oct. 19 to build highway bridge over Warrior river between Tuscaloosa and Northport; two 186-ft., 142-ft. and 109-ft. steel spans, total length of bridge 633-ft.; plans, etc., on file at Montgomery, J. A. L. Waddell, Consit. Engr., 35 Nassau St., New York, and State Highway Engr., Montgomery, Ala.

Buckets (Tin or Wood).—Kaufman Metal Co., 1st and Clark St., Jacksonville, Fla.—Names and addresses mfrs. of small tin or wood buckets, ranging from 1 qt. to 15 gals., used for soft soap.

Building Material.—M. A. Long Co., 1523 Munsey Bldg. Baltimore Md.—Sub bids until Oct. 5 on additions to high school at East Orange, N. J.

Canal Construction.—State Road Dept., H. B. Philips, Chrmn., Tallahassee, Fla.—Bids until Oct. 8 to furnish tools, mchy. and labor, to construct canals along proposed fill of Choctawhatchee River Bridge approach; 100,000 cu. yds. excavation; Chas. A. Browne, State Highway Engr.

Cans.—See Refinery Supplies.

Cars (Tanks).—See Refinery Supplies.

Cars (Passenger and Freight). — F. W. Sadler, West Palm Beach, Fla.—Prices on passenger and freight cars driven by gasoline engine for railroad 45 mi. long to be built from West Palm Beach to Lake Okeechobee, Fla.

Cars (Flat).—E. H. Wilson & Co., Commercial Trust Bldg., Philadelphia, Pa.—10 double truck, 36-in. gauge flat cars about 50,000 lb. capacity.

Crusher (Rock) and Screen.—S. M. Regar, 212 S. Franklin St., Tampa, Fla.—Rock crusher and screen.

Crane (Self - Propelling). — Meridith Brothers Construction Co., 114 College Place, Norfolk, Va.—Steam or gasoline self-propelling light road crane for 65 working days to dig ditch 18,000 cu. yds., soft ¾ or ½ yd. clamshell with teeth.

Derrick.—John G. Duncan Co., Jackson and Central Sts., Knoxville, Tenn.—Second-hand derrick suitable for lifting logs weighing 10,000 lbs. with double rope or 5,000 lbs. with single rope; immediate shipment.

Derrick (Steel).—E. H. Wilson & Co., Commercial Trust Bldg., Philadelphia, Pa.—100-ft. boom, steel stiff leg derrick with three drum hvisting engine, boiler and swinger to operate 3½ to 5 yd. two line clam shell bucket; boiler must pass Ohio inspection.

Dies (Steel or Iron).—Ben Lowe, 24 W. Monroe St., Jacksonville, Fla.—Names and addresses mfrs. of steel or iron dies.

Ditch Construction.—Middle Fork Drainage Dist., Supvrs., Walter Gladstone, Secy., Gentry, Mo.—Bids until Oct. 13 to construct main ditch, 250,000 cu. yds.; Clark E. Jacoby Engineering Co., Shukert Bldg., Kansas City, Mo.

Dredge (Dipper).—J. S. Mondy Hoisting Engine Co., 722 Frelinghuysen Ave., Newark, N. J.—Second-hand dipper dredge capable of handling ½ yd. dipper; to use on scow also able to mount on rails and work on land.

Drill (Radial).—S. M. Regar, 212 S. Franklin St., Tampa, Fla.—3 ft. radial drill.

Dryer (Heat).—Gypsum, care of Manufacturers Record, Baltimore, Md.—Rotary indirect heat dryer, capacity 6 tons in 10 hrs., in good condition, with all irons, doors, etc. for setting up complete; state details of dry, and prices f. o. b.

Duplicate Parts for Cash Register.—Texas Cash Register Co., 906 N. St. Mary St., San Antonio, Tex.—Names and addresses mfrs. of or dealers in duplicate parts for National Cash Registers.

Dynamo.—R. T. Joyce, Greensboro, N. C.—Prices on 100-H. P. dynamo.

Electric Plant Equipment.—City, W. E. Simmonds, Clk., Sayre, Okla.—Bids until Oct. 25 to extend electric light and power plant; install 150-H. P. oil engine direct connected to 125 K. V. A., 2,300-volt, 3-phase, 60-cycle generator, with foundation and accessories complete; 100-H. P. oil engine direct connected to 75-K. V. A., 2,300-volt, 3-phase, 60-cycle generator, with foundation and accessories complete; 6-panel switchboard and power wiring; remodel and repair power house and oil reservoir, etc.; plans, etc., on file, or from V. V. Long & Co., Consit. Engrs., 1300 Colcord Bldg., Oklahoma City.

Elevators.—A. F. Wasielewski Co., 1319 S. Cheyenne St., Tulsa, Okla.—One freight and 3 passenger electric elevators (10 passengers each) for 5-story department store for Hunt Co.

Engine.—John G. Duncan Co., Jackson and Central Sts., Knoxville, Tenn.—Jobbers prices on 25 H. P. stationary engine.

Engine (Oil).—W. L. Fitzgerald, Minden, La.—150 H. P. vertical oil engine, direct connected to pump.

Engine or Turbo Generating Set.—Standard Electric Machinery Co., 7 E. Hill St., Baltimore, Md.—Lowest prices on 300 to 500 K. V. A. engine or generating set 3-phase, 25-cycle, 440 or 220 volts with switchboard and exciter, 100 lbs. pressure, 20 lbs. back pressure.

Engines. — John G. Duncan Co., Jackson and Central Sts., Knoxville, Tenn.—Prices on double cylinder and double drum hoisting engines with slewing attachments for handling a derrick; immediate shipment.

Fan (Air).—Tidewater Glass Mfg. Co., J. L. Welton, Prest., Norfolk, Va.—Bids until Nov. 1 on air fan with 36-in. outlet or about 30,000 ft. capacity; second-hand if in good condition.

Filter Plant Appliances.—Ambler Engineering Co., 302 Old Dominion Trust Bldg., Richmond, Va.—To correspond with mfrs. of filter appliances as loss of head gauges, rate controllers, strainers, chemical feed apparatus, filter sand, etc.; also prices and catalogs.

Fire Alarm System.—Treasury Dept., Jas. A. Wetmore, Acting Suprvg. Architect, Washington, D. C.—Bids until Oct. 20 to install fire alarm system in U. S. Public Health Service Hospital, Fort Logan H. Roots, North Little Rock, Ark.; drawings and specifications from office of Suprvg. Archt.

Flooring.—Cleland & Griffen, Winston-Salem, N. C.—Rift pine flooring for 3-story store; 65x72 ft.

Furnaces (Pipeless).—Thomas Hall Lumber Co., New River, Tenn.—Names and addresses mfrs. of standard brands of pipeless type furnaces.

Garage Equipment.—Strickland Motor Co., Norlina, N. C.—Prices on garage equipment, including tools, etc.

Generator.—Stephen Hall & Co., 90 West St., New York City.—Generator D. C. 250 K. W., 250 volts, speed not over 600 R. P. M., good condition; G-E or Westinghouse prefered.

Girders, Posts, etc.—W. B. Morton & Co., Graham, Va.—Iron girders, posts, etc., for mezzanine floor of department store; 52x 63 ft.

Glass Lenses. — Supt. of Lighthouses, Tompkinsville, N. Y.—Bids until Oct. 13 ten 200 m. m. cut glass lenses; proposal 10826; information on application.

Glove (Canvas) Machinery.—W. H. Johns, Box 152, Kingsport, Tenn.—Data and prices on machinery to make canvas gloves.

Glove (Canvas) Material.—W. H. Johns, Box 152, Kingsport, Tenn.—Data and prices on material for canvas gloves.

Gummer (Saw).—S. M. Regar, 212 S. Franklin St., Tampa, Fla.—Covel saw gummer.

Gravel.—Muskogee County, Lewis F. Kipp, County Clk., Muskogee, Okla.—Bids until Oct. 10 for furnishing 7,330 cu. yds. Salina gravel, alternate bid on 6,115 cu. yds. Grand river gravel; F. O. B. cars at Yahola, Okla.

Gymnasium Equipment.—Edw. Gahl, Guthrie, Okla.—Equipment for small gymnasium.

Heaters and Tanks.—Universal Paint Removing Co., T. W. Scott, Mgr., 422 W. Liberty St., Louisville, Ky.—Bids on 40-gal. water tanks and heaters, to heat water to boiling point, to be attached to city water and gas supply; large quantities.

Heaters (Gasoline or Kerosene).—Universal Paint Removing Co., T. W. Scott, Mgr., 422 W. Liberty St., Louisville, Ky.—Bids on gasoline or kerosene heaters; large quantities.

Ice Making Machinery.—Sarasota Ice & Cold Storage Co., H. W. Lind, Prest., Bradentown, Fla.—Prices on compression ice making mchy.

Ice Plant.—M. H. Baker & Sons, Columbia, Va.—Data and prices on equipment for 6 or 10-ton ice plant.

Ice Plant.—City of Marianna, Ark., C. J. Gregory, Mayor.—Names and addresses mfrs. of ice plants.

Lathe.—Tidewater Glass Mfg. Co., J. L. Welton, Prest., Norfolk, Va.—Bids until Nov. 1 on 8 ft. x 18-in. modern type lathe; second-hand if in good condition.

Laundry Machinery.—Jno. Comac, Daytona Beach, Fla.—Data and prices on steam laundry mchy.

Lumber (Creosoted). — W. H. Wrenn, Chrmn. Street Commrs., Big Stone Gap, Va. —Prices on 10,000 ft. 2x6-12 ft. heart pine creosoted for bridge floor.

Mining Machinery.—Kanawha White Ash Collieries Co., E. M. Burns, Prest., Ebensburg, Pa.—Mining mchy. for 400-ton daily capacity mine.

Miscellaneous Supplies.—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until Oct. 18 to furnish; Motion picture projector, gasoline engine; water meters; receptacles; reflectors; wire and cable; aero lighting switches; lathe chuks; bolts; toilet screws; automobile tires; rubber gloves; soap; caskets; creosoted piles; paper cups; braided cord; varnish, etc. Blank forms and information (Circular 1459) on application to offices of: Panama Canal; Asst. Purchasing Agts. at New York, New Orleans, Fort Mason, San Francisco; U. S. Engr. offices throughout country.

Motor.—R. T. Joyce, Greensboro, N. C.—Prices on 50-H. P. motor.

Paper Stock.—Marianna Publishing Co., 208 Fayette St., Marianna, Fla.—Prices on paper stock of all kinds.

Paving.—City, J. C. Flanagan, Secy.-Treas., Shreveport, La.—Bids until Oct. 11 to pave north and south alley in Block 3, Herndon Ave., and other alleys; plans, etc., with City Engr.

Paving.—City, Geo. Henry, Clk., Elkins, W. Va.—Bids until Oct. 15 to pave 12th St.; brick laid on concrete base or concrete pavement; construct 2,000 ft. Livingstone Ave.; concrete pavement; plans, etc., on file.

Pipe (Steel).—W. L. Fitzgerald, Minden, La.—Spiral riveted steel pipe.

Plate Glass.—W. B. Morton & Co., Graham, Va.—See Store Front.

Plumbers Supplies.—Voyle Brothers, 207 E. Main St., Gainesville, Fla.—Catalogs of plumbers supplies, bath tubs and fittings.

Press (Drill).—Tidewater Glass Mfg. Co., J. L. Welton, Prest., Norfolk, Va.—Bids until Nov. 1 on 18-in. drill press; second-hand if in good condition.

Printing.—Police Commrs., Josiah A. Kinsey, Secy., Room 13, Court House, Baltimore, Md.—Bids until Oct. 19 to furnish police dept. with printed forms, books and stationery; specifications on application.

Produce Exchange Quotations.—Buchanan Produce Exchange, R. G. Lockwood, Propr., Buchanan, Va.—Quotations from commission brokers on butter, cheese, eggs, poultry, hay, straw, all grains, cotton seed meal and feeding stuffs; quotations from primary markets and at regular intervals.

Pump.—Petroleum Products Co., H. R. Simcox, Secy., Jacksonville, Fla.—Pump.

Pulverizing Mills.—Vicama Mica Co., 3 Hamilton Row, Hagerstown, Md.—Names and addresses mfrs. of or dealers in pulverizing mills for mica mining.

Pump (Centrifugal).—W. L. Fitzgerald, Minden, La.—8x9-in. centrifugal pump.

Quarrying Equipment.—Vicama Mica Co., 3 Hamilton Row, Hagerstown, Md.—Names and address mfrs. of or dealers in quarrying equipment for mica mining.

Rails (Steel).—F. W. Sadler, West Palm Beach, Fla.—Prices on steel rails for railroad 45 mi. long to be build from West Palm Beach to Lake Okeechobee.

Refinery Supplies.—El Dorado Oil Refining Co., L. F. Severson, 828 Mayo Bldg., Tulsa, Okla.—Prices on general refinery supplies, as tanks, stacks, tank cars, boilers, stills, barrels, cans.

Refrigerating Plant. — Treasury Dept., Supvsg. Atcht's Office, Washington, D. C.—Bids until Oct. 19, ice making refrigerating plant in kitchen and mess building at U. S. Public Health Service Hospital, No. 27, Alexandria, La.; plans on file.

Relining Boilers.—Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.—Bids until Oct. 5 for relining fire walls in 5 boilers at Bay View; Richard Gwinn, Register, City Hall; H. G. Perring, Chief Engr.

Reservoir Dam.—City, J. M. Williamson, Mayor, Cisco, Tex.—Bids opened to complete reservoir dam at Lake Cisco; 37,000 cu. yds. concrete; 750 tons reinforcing steel; 10,000 cu. yds. excavation; plans, etc., from Henry Exall Elrod Co., Engrs., Dallas, Tex.

Road Construction.—State Highway Dept., Jefferson City, Mo.—Bids until Oct. 13 to construct 1.75 mi. state road from Keytesville northward; Chariton County; Project 20.59; $15,865.20; A. W. Graham, State Highway Engr., Jefferson City; M. S. Hamick, Div. Engr., Howe Bldg., Macon, Mo.

Road Construction. — State Highway Comsn. of Alabama, Montgomery, Ala.—Bids until Oct. 26 to construct 5.36 mi. Jackson highway; part of Selma-Mobile road; State Trunk road between Catherine and Kimbrough, Wilcox County; plans, etc., on file at Montgomery, with Div. Engr., Selma, Ala., and Probate Judge, Camden, Ala.

Road Construction.—State Highway Dept., Jefferson City, Mo.—Bids to construct 6.00 mi. State road from Lancaster eastward and southward; $37,812; bids opened Oct. 5; M J. Hanick, Div. Engr., Howe Bldg., Macon, Mo.

Road Construction.—Kaufman County, G. A. Cartwright, Room 28, Cartwright Bldg., Terrell, Tex.—Bids until Oct. 6 to construct 3.91 mi. Elmo-Hiram road in Terrell Independent Road Dist. Precinct No. 3.

Road Construction.—State Highway Dept., Jefferson City, Mo.—Bids until Oct. 15 to construct 2.65 mi. state road from Macon westward; Macon County; Project 20.55; $21,812.94; A. W. Graham, State Highway Engr., Jefferson City, Mo.; M. S. Hamick, Div. Engr., Howe Bldg., Macon, Mo.

Road Construction.—Noxubee County Road Commrs. Dist. No. 5, Macon, Miss.—Bids until Oct. 15 at office of Strong & Bush, Attorneys, to construct 1 mi. public road beginning at McLeod Chapel and ending at Martin Chapel; plans, etc., on file with Attorneys.

Road Construction. — Muskogee County, Lewis F. Kipp, County Clk., Muskogee, Okla.—Bids until Oct. 10 to construct gravel road designates as Miles 4, 5, 6, 7 and 8, Section C; plans, etc., on file with County Clk., and County Engr.

Road Construction.—State Highway Dept., Jefferson City, Mo.—Bids until Oct. 10 to improve 6.63 mi. State road from Faucett including grading, constructing culverts, bridges, etc.; cost road work, $302,368.04; bridge work, $36,756.20; plans, etc., with County Clk., Div. Engr., A. C. Lingley; both St. Joseph, and State Highway Dept., Jefferson City, Mo.

Road Construction.—Highway Dept. Board State Engrs., 332 Maison Blanche Annex, New Orleans, La.—Bids until Oct. 6 to construct .95 mi. Stewart Swamp Section of Baton Rouge-Clinton highway; gravel surfacing; East Baton Rouge Parish; information on file.

Road Construction.—State Road Dept. of Florida, Tallahassee, Fla.—Bids until Oct. 20 to construct compacted rock base and bituminous macadam wearing surface on section of State Road No. 1, 9.89 mi.; Federal Aid Project No. 24, Columbia County, between Lake City and Baker county line; alternate bid on concrete, grouted brick, asphaltic concrete, sheet asphalt and rock asphalt; plans, etc., on file at Tallahassee, and with Div. Engr., Lake City, Fla.

Road Construction.—M. S. Davis, Civil Engr., Louisburg, N. C.—Bids until Oct. 17 to construct 2½ mi. Louisburg to Warrenton road and other roads in Sandy Creek Township.

Road Construction. Midland County, J. M. DeArmond, County Judge, Midland, Tex. —Bids until Oct. 10 to construct 26.91 mi. State Highway No. 1; Job 165-A, F. A. Project 235-C; plans, etc., from R. W. Baker, County Engr., Big Springs, Tex., and State Highway Dept., State Office Bldg., Austin, Tex.

Road Construction.—Ector County, J. T. Cross, County Judge, Odessa, Tex.—Bids until Oct. 10 to construct 24.74 mi. road; Job 69-B; F. A. Project 235-D; plans, etc., from R. W. Baker, County Engr., Big Springs, and State Highway Dept., State Office Bldg., Austin, Tex.

Road Construction. — Howard County, James T. Brooks, County Judge, Big Spring, Tex.—Bids until Oct. 10 to construct 34.25

mi. road; **Job 115-A, F. A. Project 235-A**; plans, etc., from R. A. Baker, County Engr., Big Spring, State Office Bldg., Austin, Tex.

Road Construction.—Martin County, A. G. Odom, County Judge, Stanton, Tex.—Bids until Oct. 10 to construct 12.79 mi. State Highway No. 1; **Job 156-A**; F. A. Project 235-B; plans, etc., with R. W. Baker, County Engr., and State Highway Dept., State Office Bldg., Austin, Tex.

Road Construction.—North Carolina State Highway Comsn., Dist. Office, Wilmington, N. C.—Bids until Oct. 10 to construct 3.35 mi. State Highway in Robeson County; State Project No. 621; plans from Dist. Engr., Wilmington.

Road Construction.—North Carolina State Highway Comsn., Dist. Office, Wilmington, N. C.—Bids until Oct. 10 to construct 13.17 mi. road in Bladen County; **Project 623**; plans from Dist. Engr., Wilmington.

Road Construction.—North Carolina State Highway Comsn., Dist. Office, Wilmington, N. C.—Bids until Oct. 10 to construct 15.56 mi. State Highway; Project 518; also 7.64 mi. State Highway; Project 541; both Pender County; plans from Dist. Engr., Wilmington.

Road Construction.—North Carolina State Highway Comsn., Dist. Office, Wilmington, N. C.—Bids until Oct. 10 to construct 75 mi. State Highway in Harnett and Cumberland counties; Project 624; plans from Dist. Engr., Wilmington.

Road Construction.—Jeff Davis County, J. W. Merrill, County Judge, Fort Davis, Tex.—Bids until Oct. 8 to construct Highway No. 1 road; 2.774.2 cu. yds. surfacing; plans, etc., with County Clk., Fort Davis, and State Highway Dept., Austin, Tex.

Road Construction.—Reeves County, S. C. Vaughan, Clk., Pecos, Tex.—Bids until Oct. 6 to construct Highway No. 1; Federal Aid Project 242-A, Job 195-A, Section A; also Highway No. 1, Federal Aid Project 242-B, Job 195 A, Section B; plans, etc., on file at Pecos, and with State Highway Dept., Austin, Tex.

Road Construction.—Henry County Supvrs., Martinsville, Va.—Bids until Oct. 8 to construct top-soil roads as follows: from Elmwood to Mountain Valley, 4.35 mi; from Martinsville via Leatherwood, Mountain Valley to county line, 15.84 mi; from about ¾ mi. from Ridgeway on Ridgeway and Spray Road to Eaggleston's store, 3.39 mi; from Morgan's Ford bridge to point on Ridgeway and Spray road 3 mi. from Ridgeway, 5.9 mi.; from Dillon's fork via Center church to county line near Old Dillon place, 7.46 mi.; from Mayo church to North Carolina line, 3.18 mi; from Oak level to Philpott, 4 mi.; from Jones Creek to point on Barrow's Mill road, 3.73 mi.; plans, etc., from H. D. Whittle, Road Engr., and County Clk.

Saw (Rip) and Matcher.—S. M. Regar, 212 S. Franklin St., Tampa, Fla.—30-in. rip saw and 4 side matcher.

Sewers.—City, W. E. Simmonds, Clk., Sayre, Okla.—Bids until Oct. 25 to extend sewer system; install 3,300 lin. ft. 8 and 12-in. V. S. sewer lines including trenching and backfill; 300 lin. ft. 12-in. cast iron pipe sewer lines; 50 Y openings; 12 manholes; 2 lampholes, etc.; plans, etc. on file, or from V. V. Long & Co., Consit. Engrs., 1300 Colcord Bldg., Oklahoma City.

Sewers.—Board of Commrs., Mat. Miser, Commr. of Streets and Sewers, Huntington, W. Va.—Bids opened to construct sewers in 29th St. and 5½ Alley, and in Staunton Road and alley between Staunton and Winters Roads; plans, etc., on file and with A. B. Maupin, City Engr.

Sewer Construction.—City, Rowlett Paine, Mayor, Memphis, Tenn.—Bids until Oct. 18, to construct Binghampton sanitary sewer outlet main; 9,540 lin. ft. terra cotta pipe; 4,450 ft. 21 and 18-in. pipe; 25 manholes; 60-ft. siphon; concrete spillway; plans, etc., from City Engr.

Shear.—G. R. Mueller Co., 1014 Brown Marx Bldg., Birmingham, Ala.—Heavy shear with small throat capacity 1½-in. round bars, state condition, etc.

Shingles (Asbestos).—Brydson Lumber & Constr. Co., Austin, Tex.—Prices on asbestos shingles for $17,000 parish house.

Shovel (Steam).—John M. Greene, Drexel Bldg., Philadelphia, Pa.—Prices f. o. b. shipping point on Marion model 25 steam shovel with ¾ yd. dipper on traction wheels; state particulars with shop number, etc.

Signs (Metal).—Millin Drug Co., M. M. Martin, Prest.-Mgr., Memphis, Tenn.—Complete equipment to mfre. sheet metal advertising signs for out-door use.

Slit Machines.—John G. Duncans, Jackson and Central Sts., Knoxville, Tenn.—Dealers prices on new and second-hand slit machines, to make slits for chair bottoms.

Soda (Caustic).—Universal Paint Removing Co., T. W. Scott, Mgr., 422 W. Liberty St., Louisville, Ky.—Prices on high test caustic soda; 76% and 94 per cent test; car loads and less.

Stacks.—See Refinery Supplies.

Store Front.—W. B. Morton & Co., Graham, Va.—Plate Glass store front; 63 ft.

Stills.—See Refinery Supplies.

Tanks.—See Refinery Supplies.

Telephone Supplies.—Chief Signal Officer, U. S. Army, Munitions Bldg., Washington, D. C.—Bids until Oct. 11 to furnish 100 induction coils, 300 condensers, 100 binding posts, 500 file controls, retardation coils without mounting; (Circular PR, 8149-1CP) information on application.

Terra Cotta Making Machinery.—Sidney M. Carter, Ronda, N. C.—Names and addresses mfrs. of terra cotta making mchy.

Trailer.—Delta & Pine Land Co., Guaranty Bank Bldg., Memphis, Tenn.—Names and address mfrs. of trailer that can be used with Ford roadster.

Transmitters and Receiver.—Chief Signal Officer, U. S. Army, Munitions Bldg., Washington, D. C.—Bids until Oct. 17 to furnish 500 to 750 transmitters and receivers with loop, equipment box and battery cases; (Circular PR 6840-A-C-P). f. o. b. following destinations: Brooklyn, N. Y., Washington, D. C., Atlanta, Ga., Fort Mason, Calif.; information on application.

Trimming or Cut Off Saw.—J. S. Dovel, Mt. Crawford, Va.—Second-hand cut off saw; one that arbor slides up to work on level plane; suitable for dado work.

Tug (Wood or Steel Hull).—Gilbert D. Von Phul, Carondelet Bldg., New Orleans, La.—Steam screw tug from 50 to 80 ft. long draft not to exceed 3 to 4 ft. maximum, either wood or steel hull will be considered.

Turbo Exciter Set.—John A. Stewart Electric Co., Cincinnati, O.—Steam turbo exciter set any size from 25 to 100 KW. D. C. volts 125, steam pressure 125 to 150 lbs., speed not to exceed 1800 RPM.; immediate shipment.

Vacuum Cleaner. — Edw. Gahl, Guthrie, Okla.—Vacuum cleaner.

Water-Works.—City, W. E. Simmonds, Clk., Sayre, Okla.—Bids until Oct. 25 to extend water-works; construct 4,300 lin. ft. 4 and 6-in. cast iron pipe lines; eleven 4 and 6-in. valves and boxes; two 4-in. 2-way fire hydrants; seven 4 and 6-in. wet connections; relay 500 lin. ft. 6-in. cast iron pipe; install 2-unit reservoir complete; install pumping equipment; 2 horizontal motor driven centrifugal pumping units, capacity 300 G. P. M. each, against 200 ft. head with 25-H. P. 2200 volt slip ring motor, foundations, switchboard panels, wiring, suction and discharge piping and valves installed complete; plans, etc., on file or from V. V. Long & Co., Consit. Engrs., 1300 Colcord Bldg., Oklahoma City.

Wheel.—R. T. Joyce, Greensboro, N. C.—Prices on 30-in. vertical wheel.

Wire (Copper).—R. T. Joyce, Greensboro, N. C.—Prices on 15,600 lbs. No. 4 copper wire.

New Financial Corporations.

Ala., Mobile — Chickasabogue Land Co., capital $30,000, incptd. with C. W. Hempstead, Prest.; Robert A. Otis, V.-P.; Guy Stroebel, Secy.-Treas.

Fla., Sanford—Seminole Securities Co., capital $60,000; organized with F. P. Forster, Prest; R. C. Maxwell; Secy; B. F. Whitner, Treas.

Fla., Sulphur Springs — Bank of Sulphur Springs, capital $15,000, organized with E. W. Coates, Prest.; N. A. Perry, V.-P.; S. A. Graves, Cashr.

Ga., Savannah—First National Bank, capital $250,000, will charter with Henry Y. Tillman and others of Valdosta, Ga.

Md., Baltimore—Security Investment & Realty Co., 217 Court House, capital $100,000, incptd. by Wirt A. Duvall, Jr., Wm. B. Henkel.

Md., Frederick—Central Building & Loan Club, organized with Frank M. Dertzbaugh, Prest.; Homer D. Kepler, Secy.-Treas.

Miss., Jackson—Chamber of Commerce have organized Common Law Trust & Farm Home Building & Loan Assn.

Tex., Alvin—W. P. Davis and others have organized a building and loan association with $50,000 capital.

New Securities.

Ala., Anniston—Park, Etc.—City will vote Oct. 31 on $50,000 park bonds. Address The Mayor. (Previously noted.)

Ala., Birmingham—Paving—City Comsn. sold $115,500 of 7 per-cent semi-annual $500 denomination paving bonds, dated Sept. 1, 1921, to R. M. Grant & Co., (Lately noted inviting bids.)

Ala., Guntersville—J. L. Arlitt, Austin, Tex., purchased $20,000 Marshall County, Ala., 7 per cent certificates of indebtedness, dated May 9, 1921, due Feb. 1, 1922.

Ala., Troy—Funding, Auditorium, School, Hospital and Water—City will vote Oct. 24 on $65,000 funding, $35,000 auditorium, $15,000 school $10,000 hospital, and $25,000 waterworks bonds. Address The Mayor.

Fla., Clermont—Water—City receives bids Oct. 4 on $30,000 of 6 per cent $500 denomination 30-yr. water bonds, dated Sept. 1, 1920. Address The Mayor.

Fla., Daytona—Paving and Drainage—City sold $450,000 of 6 per cent semi-annual $1000 denomination street and drainage bonds to G. B. Sawyer Co., Jacksonville, Fla., at 95¼. (Lately noted inviting bids.)

Fla., Daytona—Municipal—City sold $20,000 municipal improvement bonds to Warren Bros. Boston, Mass.

Fla., Fort Pierce—Drainage—St. Lucie County Supvrs. plans issuing $600,000 drainage bonds.

Fla., Manatee—Sewer and Water-City plans voting on about $10,000 water and sewer bonds; T. M. McDuffee, Mayor.

Fla., Valparaiso—Electric, Water, Street, Sewer, Pier, Ice Plant, Etc.—City Commrs. receives bids on $25,000 water, $25,000 sewer, $50,000 street, $15,000 bridge, $20,000 pier and dock, $15,000 ice plant and $20,000 electric bonds; 7 per cent semi-annual $500 denomination, dated July 1, 1921; A. P. Kastler, Clk. (Supersedes recent item.)

Fla., Winter Park—Fire Equipment—City voted $25,000 fire equipment bonds. Address The Mayor.

Ga., Blackshear—Road—Pierce County, A. P. Davis, Clk. County Commrs. sold $40,000 of 5 per cent semi-annual road bonds to, Robinson-Humphrey Co., Atlanta, Ga. (Previously noted inviting bids.)

Ga., Cedartown—Sewer, Street and Drainage—City, H. M. Hall, Mayor plans voting on $160,000 sewer, street and drainage bonds.

Ga., Dalton—School—City plans voting on $80,000 school bonds. Address The Mayor.

Ga., Monroe—Ice Plant—City voted $16.000 ice plant bonds. Address Mayor Roberts.

Ga., Newnan—School—Starr School Dist., J. A. Daniel, Chrmn. Trustees sold $10,000 of 7 per cent 5-6 yr. school bonds, dated Oct. 1, 1921 to, B. T. Thompson, at 106.73. (Lately noted inviting bids.)

Ga., Statesboro—School—City sold $75.000 school bonds. Address The Mayor.

La., Amite—Road—Tangipahoa Parish Police Jury will receive bids until Oct. 25 on $325,000 road bonds of Road Dist. 1, Ward 7; F. C. Weist, Clk.

La., Baton Rouge—Drainage—Commrs. Bayou Fountain Drainage, East Baton Rouge Parish will receive bids until Oct. 12 on $65,000 of 5 per cent $1000 denomination 15-yr. drainage bonds; W. D. Woodward, Secy.

La., LaFayette—Road—LaFayette Parish Road Dist. No. 1 sold $36,000 of 5 per cent road bonds to, Marine Bank & Trust Co., and Securities Sales Co., of Louisiana; both New Orleans, La.; semi-annual $500 denomination, dated Aug. 1, 1920. (Previously noted inviting bids.)

La., Monroe—Road—Ouachita Parish Road Dist. No. 1 sold $1,000,000 of 6 per cent $1000 denomination semi-annual road bonds, dated Sept. 15, 1922 to Sutherlin, Barry & Co., New Orleans, La. (Lately noted inviting bids.)

La., Monroe—Sutherlin, Barry & Co., New Orleans, La., purchased $950,000 of 6 per cent semi-annual $1000 denomination City of Monroe bonds, dated Sept. 15, 1921.

La., New Iberia—Drainage—Petite Anse Coteau Drainage Board sold $70,000 drainage bonds; A. L. Babineaux, Prest.

Md., Oakland—Water, Sewer and Electric—Mercantile Trust & Deposit Co., Calvert & Redwood Sts., Baltimore, purchased $15,000 of 5 per-cent bonds of Oakland, Md., consisting of $10,000 water and sewer and $5,000 electric bonds.

Miss., Union—School—Union Consolidated School Dist. voted $10,000 school bonds. Address Board of Education.

Mo., Cape Girardeau — Drainage — Little River Drainage Dist. receives bids Oct. 6 on $750,000 of 6 per cent semi-annual $1000 denomination drainage bonds; B. F. Burns, Secy. Board Supvrs.

Mo., Kansas City—Water, Bridge, Park, Viaduct, Fire Equipment, Swimming Pool, Etc., City will vote Nov. 22 on $6,800,000 public improvement bonds including $11,000,000 water, $800,000 Fifteenth St. widening Etc. Address Mayor Cowgill. (Lately noted).

Mo., Seymour — School — Board of Education will vote in November on $22,000 of $1000 denomination school bonds; changed date from Sept. 22; Ernest Coday, Clk. (Lately noted.)

Mo., Springfield — School — Greene County Consolidated School Dist. No. 3 registered $13,000 bonds with State Auditor.

Okla., Vinita—Water—City will issue $200,000 water bonds. Address The Mayor.

N. C., Asheville—School, Sewer, Street, Water, Refunding and Funding—Gallatin Roberts, Commr. of Public Accounts, will receive bids until Oct. 6 for following 6 per cent semi-annual bonds; $550,000 18 1-6-yr. average school; $90,000 9¼-yr. average street; $25,000 14 2-3-yr. average water; $39,500 17 2-3-yr. average refunding; $62,000 6 1-3-yr. average funding; $40,000 21-yr. average sewer. (Lately noted.)

N. C., Asheville—Road and Bridge—Buncombe County Commrs. will receive bids Oct. 8 on $150,000 of 6 per cent $1000 denomination road and bridge bonds, dated Oct. 1, 1921; B. A. Patton, Chrmn.

N. C., Durham—School—City, C. B. Alston, Treas., sold $525,000 of 6 per cent $1000 denomination school bonds, dated July 1, 1921 to R. M. Grant & Co., New York. (Lately noted inviting bids.)

N. C., Fayetieville—School Board Trustees, J. S. Schenck, Secy., sold $250,000 of 6 per-cent semi-annual 40 yr. school bonds to National Bank, at par. (Lately noted inviting bids.)

N. C., Laurinburg—School—T. J. Gill, Secy. County Board of Education will receive bids until Oct. 24 on $150,000 of 6 per cent semi-annual school bonds, dated Oct. 1, 1921, due Oct. 1, 1951.

N. C., Lexington—Street, Water and Electric—City receives bids Oct. 3 on $200,000 street and $50,000 water and electric bonds; 6 per-cent $1000 denomination, dated Oct. 1, 1921; James A. Leonard, Mayor.

N. C., Middlesex — School — Middlesex School Dist. No. 1 Trustees will receive bids until Oct. 11 on $37,000 of 6 per cent semi-annual $1000 denomination school bonds, dated Oct. 1, 1921; A. F. Manning, Secy.

N. C., Monroe—Union County Commrs. M. C. Long, Clk., will receive bids until Oct. 10 for $100,000 6 per cent semi-annual 14¾-yr. average road and bridge bonds.

N. C., Monroe—Road and Bridge—Union County Commrs. will receive bids until Oct. 10, on $100,000 of 6 per-cent semi-annual $1000 denomination road and bridge bonds, dated Oct 1, 1921; M. C. Long, Clk. Commrs.

N. C., Mt. Airy—School—Town sold $40,000 school bonds to firm in Chicago, Ill. Address The Mayor.

N. C., Oxford—Road—Granville County, C. G. Powell, Clk. Commrs. will receive bids until Oct. 10 on $150,000 of 6 per cent semi-annual 25-yr. road bonds.

N. C., Pilot Mountain—Hydro-Electric—Town will vote Oct. 25 on $50,000 hydro-electric bonds. Address The Mayor.

N. C., Smithfield—Smithfield Township Roads Commrs. will receive bids until Oct. 26 on $15,000 of 6 per cent semi-annual $1000 denomination 15 yr. road bonds, dated May 1, 1921; J. W. Stephenson, Chrmn.

N. C., Statesville—A. B. Leach & Co., New York purchased $125,000 of 6 per cent semi-annual $1000 denomination notes, dated Aug. 15, 1921.

N. C., Thomasville—Street and Water—City will receive bids until Oct. 15 on $100,000 of 6 per cent water and street bonds, dated Oct. 1, 1921. Address The Mayor.

N. C., Wingate—Electric—Town Commrs. will receive bids until Oct. 10 on $10,000 of 6 per-cent semi annual $500 denomination electric light bonds, dated Aug. 1, 1920; A. C. Small, Clk.

Okla., Beggs—City Hall—City will receive bids until Oct. 1 on $50,000 of 6 per-cent city hall bonds; Rogers Willett, Clk.

Okla., Crescent—Electric and Water—City voted $60,000 electric bonds. Address The Mayor.

Okla., El Reno—School—Board of Education sold $214,000 school bonds, at par and accrued interest.

Okla., Idabel—Road McCurtain County sold $350,000 road bonds. Address County Commrs.

Okla., Oklahoma City — Funding—Judge James I. Phelps approved issuing of $71,000 funding bonds by City Commrs.

Okla., Sayre—Electric, Water and Sewer—City will receive bids until Oct. 24 on $40,000 electric, $28,500 water and $6,500 sewer improvement bonds; 6 per cent semi-annual 25-yr., dated July 1, 1921; W. E. Simmonds, Clk.

Okla., Wilson—Water, Light, Fire Equipment, Park, Etc.—City plans voting on $140,000 water, electric, fire equipment, park and other improvement bonds. Address The Mayor.

S. C., Hartville—School—Hartville School Dist. No. 32, Darlington County receives bids Oct. 1 on $30,000 of 6 per-cent semi-annual school bonds; J. A. McIntyre, Secy-Treas.

S. C., Hartville—Railroad Refunding, Water and Sewer Funding—Town, P. H. Rogers, Jr. Mayor will receive bids until Oct. 14 on $70,000 of 6 per-cent semi-annual railroad refunding and water and sewer refunding bonds, dated Nov. 1, 1921.

Tenn., Camden—Road—Benton County receives bids Oct. 3 on $50,000 of 5 per cent semi-annual $1000 denomination road bonds, dated Oct. 1, 1921. Address County Court.

Tenn., Knoxville—Incinerators—City authorized $75,000 sewer bonds. Address City Commrs.

Tenn., Murfreesboro — Water — City reported to have sold $100,000 water bonds. Address The Mayor.

Tenn., Murfreesboro—Water and Indebtedness—City sold $100,000 outstanding indebtedness and $130,000 water bonds; contemplate issuing $50,000 water bonds within 6 months; R. E. Lowe, City Mgr. (Lately noted.)

Tenn., Newport—Road—Cocke County voted $200,000 road bonds. Address County Commrs. (Previously noted to vote.)

Tenn., Somerville—Drainage—Loosahatchie River Drainage Dist. sold $315,000 of 6 per cent semi-annual $1000 denomination drainage bonds, dated April 1, 1921 to Caldwell & Co., St. Louis, Mo.

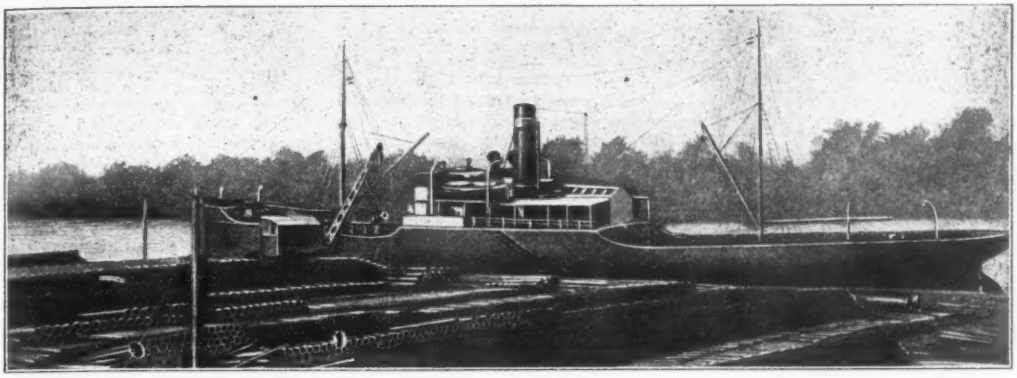
Tex., Albany—Water—City voted $100,000 of 6 per cent water bonds. Address The Mayor. (Lately noted to vote.)

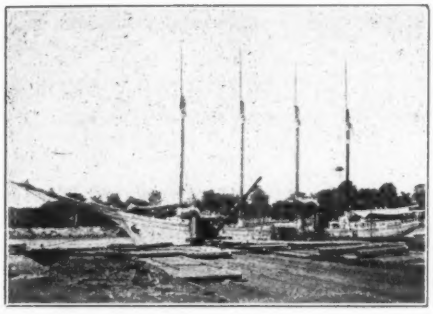
Tex., Austin—Bridge and Road—Travis County may vote on $1,250,000 bridge and road bonds; Geo. S. Matthews, County Judge.

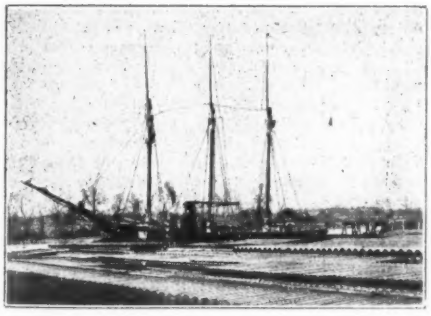
Tex., Cameron—Sewer, Water and Electric—City plans voting on $250,000 sewer, water and electric bonds. Address The Mayor.

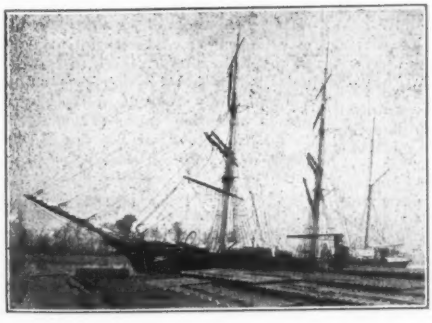
Tex., Crosbyton—Bridge—Crosby County voted $12,000 bridge bonds. Address County Commrs.

Tex., Devine—School—Devine Independent School Dist. registered $12,000 of 6 per cent 10-40-yr. bonds with State Comptroller.









Steamer-Schooner Bark

Unusual transportation problems can often be solved by water and rail or all water shipments. It is easy for a large steamer, a barge or even one of the older types of sailing vessel to load at our wharves. This service is often of value for domestic as well as export shipments.

For Instance the four masted schooner, illustrated, carried a load of pipe to a New England sea-coast town both quickly and economically.

United States Cast Iron Pipe & Foundry Co.

General Office: Burlington, New Jersey

Tex., Eagle Pass.—J. L. Arlitt, Austin, Tex., purchased $12,139.54 City of Eagle Pass 6 per cent general indebtedness funding bonds, dated May 1, 1921, due serially 1922 to 1933, inclusive; also $12,344.52 City of Eagle Pass 6 per cent general indebtedness funding bonds, dated May 1, 1921, due serially 1922 to 1933, inclusive.

Tex., Eastland — School — Eastland Independent School Dist. will receive bids on $50,000 of 6 per cent $1000 denomination school bonds, dated June 1, 1921; these bonds were recently registered by State Comptroller. (Lately noted.)

Tex., Fort Davis—Road—Jeff Davis County will receive bids until Oct. 8 on $6,000 of 5½ per cent road bonds; J. W. Merrill, County Judge.

Tex., Gatesville—Water—City will vote Oct. 26 on $42,500 water bonds. Address The Mayor.

Tex., Georgetown — Road — Williamson County received bids Sept. 28 on $336,000 road bonds. Address County Commrs.

Tex., Gladewater — School — Gladewater Independent School Dist. registered $25,000 of 5½ per cent serial bonds with State Comptroller.

Tex., Harlingen—School—Harlingen Independent School Dist. sold $30,000 of 20-40-yr. bonds to State of Texas, at par.

Tex., Haskell—Water and Street—State Comptroller registered $20,000 water and $30,000 street bonds on Sept. 16. (Lately noted.)

Tex., Lefors—School—Attorney General Dept., Austin, Tex., approved $14,000 bonds of Pampa Independent School Dist. of Gray County.

Tex., Malakoff—School—Malakoff Independent School Dist. registered $8,000 of 5 per cent school bonds to State of Texas at par; these bonds were registered with State Comptroller on April 2.

Tex., Marshall—Road—Harrison County sold $50,000 road bonds to local parties; W. H. Strength, Judge.

Tex., New Braunfels—Water—City, Chas. Alves, Mayor sold $35,000 of 6 per-cent $500 denomination 40yr. water bonds to local citizens at par value plus accrued interest. (Lately noted.)

Tex., Port Arthur—Sewer, Water, Street and Bridge—City plans voting on sewer, water, street and bridge bonds of over $200,000; E. R. Thomas, City Engr. (Supersedes recent item.)

Tex., San Saba—Road—San Saba County will vote on $300,000 road bonds. Address County Commrs.

Va., Alexandria—Street and Gas—City will issue $120,000 street and $180,000 gas plant bonds. Address The Mayor.

Va., Cleveland—School—Cleveland School Dist. will receive bids on $25,000 of 6 per cent school bonds; J. E. Purcell, Clk. Board of Education.

Va., Clifton Forge—City sold $100,000 of 6 per cent 20-yr. bonds to Clifton Forge National Bank, at par and interest; C. P. Nair, Chrmn. Finance Committee. (Lately noted inviting bids.)

Va., Rocky Mount—Water—City voted Sept. 24 on $25,000 bonds. Address The Mayor.

Financial Notes.

Bank of Statesboro, Statesboro, Ga. filed application with Secy. of State to increase capital stock from $70,000 to $100,000.

City National Bank, Tuscaloosa, Ala. will increase capital from $100,000 to $150,000.

Trade Literature

A Handsome Catalog.

The Weller Manufacturing Company, Chicago, have issued a new catalog, 35D, displaying in a most attractive and superior style the merits of their spiral conveyors. The book abounds in valuable data and the illustrations are fine. Blue and gold ornament the cover pages.

New Set of Weight Cards

The American Sheet and Tin Plate Company of Pittsburgh, Pa., have issued a new and revised set of weight cards covering black sheets, galvanized sheets, and formed products. These cards are 14 x 20 inches in size, and are clearly printed. They are of particular value to all buyers and users of sheet steel says the company. One of their perpetual calendars will be sent upon request.

Motor Sweepers Described.

The Austin motor sweeper, manufactured by the Austin Manufacturing Co., of Chicago, is adequately described in Catalog G of that corporation as a sweeper which "replaces the ordinary horse-drawn sprinkler and crew of 'white wings', and accomplishes better street sweeping machine, with the customary results with no dust, less expense and in a more sanitary and efficient manner." The book is exceedingly complete and the illustrations display in detail the nature of the work which the machine does. It is shown at work in different cities.

Two Fine Bulletins.

Two new bulletins have been issued by the Aldrich Pump Company, Allentown, Pennsylvania, presenting an abundance of useful information for users of pumps. These publications are respectively "Pump Data 50" and "Pump Data 60" and they supersede previous issues of the same numbers, while the latter also supersedes, in addition, Nos. 56, 57 and 59. The No. 50 contains a very large quantity of tabulated figures concerning pump capacities, water head pump loads, friction, etc., etc., and No. 60 covers the "Ydrange" group of single acting, outside packed plunger vertical triplex pumps of the solid water-end type and two-standard design. Both bulletins are illustrated.

Diesel Type Engines

The Hadfield-Penfield Steel Company, Bucyrus, Ohio, have issued two catalogs describing and illustrating their Diesel type Horizontal and vertical standard fuel oil engines These engines are built on the two-cycle principle with a cross head which also serves as a pumping piston for furnishing air to clean out and fill the main working cylinder. The horizontal engine is built in three sizes of cylinders and of 50, 75 and 100 horsepower, the last two sizes being built as twin units, giving respectively 150 and 200 horsepower. The vertical engine is built on two-cylinder sizes of 50 and 125 horsepower per cylinder and in from two to six cylinder units.

Conveying Apparatus Described

A leaflet describing the advantages of their overhead conveying apparatus has been issued by the Cleveland Electric Tramrail division of the Cleveland Crane & Engineering Co. of Wickliffe, Ohio. Various combinations of this equipment are manufactured to meet all possible requirements, including electric hoist and travel with electric-traveling platform, waterproof trailing cab, electric hoist with hand travel, and hand-power hoist and travel. Complete flexibility of the apparatus is one of the strongest claims made for it, together with its "almost human ability to move into every nook and corner of a plant, hoist, and convey the work in an easy and expeditious manner."

Masterbuilt Floors.

The Book of Masterbuilt Floors is a new sectional catalog completed by the Master Builders Company, Cleveland, Ohio. It will be found of practical value and interest to contractors, architects, and prospective builders of concrete structures, anyone of whom may obtain a copy by request sent on business letter head. The Masterbuilt Floors are described as being permanently dustless, wear resistant, and waterproof, these characteristics being accomplished by methods original with the company. The book is profusely illustrated.

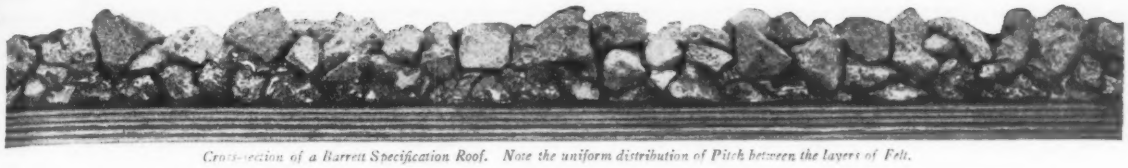
Piston Rings

The "Ever-Tyte" piston ring division of the Walter A. Zelnicker Supply Co., St. Louis, Mo., is issuing a series of booklets in connection with their piston rings for cylinders of all kinds. The larger rings are used in locomotives and other engines, pumps, air compressors, etc., and the booklets show what users say of them as contrasted with manufacturers' claims of efficiency. The letters have been received from men in nearly every kind of business, including a well-known razor maker, lumber companies, oil companies, ice manufacturers, bottling companies, iron, steel and coal companies, and they indicate the different types of machines in which these piston rings may be used. The Zelnicker has adopted a phrase which might be termed a "slogan" in which they are emphasizing their thought, namely: "It is what the user says that counts", and on this basis their advertising campaign has been built. The Welders Supply Co., 639 North Eutaw Street, Baltimore, Md., are the representatives for these rings for Maryland and the District of Columbia.

BOOK REVIEW.

America's Power Resources. By Chester G. Gilbert and Joseph E. Pogue. New York: The Century Company, 1921. 12mo. Pp. 325. $2.50.

According to the authors of this small but impressive book much of current economic difficulties is traceable to shortcomings in the way our great energy resources of coal, oil, natural gas and water-power are handled and they have endeavored to interpret the special importance which attaches to them. In addition to this it is attempted to present the changes in the administration of energy which must come about if adequate progress, socially and industrially, is to be attained, and also to point out the lines of progress for the application of constructive effort. Eleven chapters compose the volume and in them consideration is given successively to human labor and mechanical work, the foundation of industrialism, coal as the basis of national welfare; oil, as the accelerator of progress; natural gas, waterpower, smokeless fuel, power and industrial progress, transportation, equalization of industrial opportunity and finally co-ordination and industrial evolution. There are numerous illustrations and those relating to coal mining and the development of oil territory are especially timely in view of the wide interest in these two lines of industry. The book is an economic as well as a social study and one of its conclusions demands quotation thus: "Upon our attention to energy, the future of our democracy depends. The most critical point in our whole structure is the social unrest arising from the advanced cost of living, and this is due, in the last analysis, to the fact that the most important factor toward reducing cost has not been applied to that purpose. What is needed is a wide-spread appreciation of the significances of energy as a factor in living cost, which will bring a pressure of public demand that will lead to an adequate method of energy administration."



Cross-section of a Barrett Specification Roof. Note the uniform distribution of Pitch between the layers of Felt.

Right Construction is *Half* the Roof—

STUDY the illustrations at the right. In these the successive steps in the building-up of a Barrett Specification Roof over concrete are graphically shown. The Barrett Specification describes in detail the manner in which the roof shall be laid, because *right construction is just as important as the use of right materials.*

The Barrett Specification Roof for flat- or nearly flat-roofed buildings, consists of several alternate layers of Specification Pitch and Specification Felt, with a surface covering of gravel or slag. These materials are used because 60 years' experience has proved—

—that no other bitumen has the weather-resisting properties of this high grade pitch;
—that no other kind of felt has the lasting tensile strength of this carefully selected felt;
—that no other surfacing material renders a roof so highly fire-resistant as gravel or slag which serves the further purpose of holding in place the extra-thick *poured* top coat of Barrett Specification Pitch.



The concrete roof-deck is heavily mopped with a uniform coating of Barrett Specification Pitch.



Left: Mopping on the Barrett Specification Pitch. Each layer of felt is hermetically sealed to the adjoining layer by the pitch waterproofing. In no spot do the layers touch each other.



Right: Laying the Barrett Specification Tarred Felt on the pitch seal coat. Four plies with pitch in between are laid over the entire roof surface, each ply overlapping three-fourths of the preceding ply.

Have your roofing contract call for the 20- or 10-year Surety Bond Guaranty. This is issued free of charge through the U. S. Fidelity and Guaranty Company of Baltimore. Then you will be sure that Barrett Specification materials will be applied, in sufficient quantities and by proper methods. For all Barrett Specification Bonded Roofs are constructed under the watchful eye of an experienced Barrett inspector who is present on the job to see that the Specification is strictly complied with.

Before specifying or closing contract for a Barrett Specification Roof, be sure to read carefully all the stipulations in the Specification.

Full details regarding these Bonded Roofs and copies of The Barrett Specifications sent free on request.

Below: Pouring final coat of hot Barrett Specification Pitch and embedding thick wearing surface of gravel or slag after entire roof has received four plies of felt and pitch



The Barrett Company

New York	Chicago	Philadelphia	Boston	St. Louis	Cleveland	Cincinnati
Pittsburgh	Detroit	New Orleans	Birmingham	Kansas City	Minneapolis	Dallas
Nashville	Syracuse	Seattle	Peoria	Atlanta	Duluth	Salt Lake City
Bangor	Washington	Johnstown	Lebanon	Youngstown	Milwaukee	Toledo
Columbus	Richmond	Latrobe	Bethlehem	Elizabeth	Buffalo	Baltimore
Omaha		Houston		Denver		Jacksonville

THE BARRETT COMPANY, Limited: Montreal, Toronto, Winnipeg, Vancouver St. John, N. B., Halifax, N. S.

Barrett Specification Roofs

Bonded for 20 and 10 Years

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Contract Awarded

The Hadfield-Penfield Steel Company of Bucyrus, Ohio, have secured the contract for the engines and generators in the municipal light plant at West Point, Nebraska. The equipment consists of two 150 horsepower vertical standard fuel oil engines which are to be direct-connected to Western Electric Company alternating current generators.

Sale of Valuable Mills.

The plant of the Southern Hosiery Mills, Inc., at Burlington, N. C., will, according to formal announcement in another column, be offered for sale at auction at 11 A. M. October 10 on the premises by M. W. McPherson, trustee in bankruptcy. There is real estate and personal property all of which will be disposed of and which is of especial interest to manufacturers of hosiery and others. Any inquiries will be answered by the trustee.

Good Results From Cooper Hewitt Lights

Excellent results have been effected by a recent installation of Cooper Hewitt lamps by the Susquehanna Hosiery Mills of Philadelphia, according to a recent announcement of the General Electric Co. A saving of 370 watts of lighting current per machine was made, the Cooper Hewitt's doing away with the necessity of individual lamps for the separate machines and supplying an evenly diffused light similar to that produced by a factory skylight. The machines are for embroidering hosiery and range in length from 15 to 25 feet, being placed in rows with an aisle between. The mill foreman is quoted as saying that the light is very easy on the eyes of the operatives and that on one occasion recently during a thunderstorm when the room was without natural light, the Cooper Hewitts were turned on and the room was even better lighted than with skylights.

Heavy Duty Trailer.

A trailer designed for heavy duty in connection with tractors and to be used at warehouses, terminals and transfer stations is the latest product of the Sharon Pressed Steel Co., Sharon, Pa., and it has been given the distinctive name of "Brute" as appropriate considering its exceptionally strong construction. It can be made in any length up to 72 inches and in any width up to 50 inches. This trailer was recently given a road test with a load of 8,000 pounds which it is noted, did not reveal any weakness and indicated its adaptability to the most exacting service.

American Machinery in India.

Another instance of American machinery in distant lands is to be found at Bombay, India, where the Tata Construction Company, Ltd., has used two Haiss portable belt conveyors for practically a year to unload sand and brick from barges to railway cars alongside of a wharf and also for loading sand from the ground into bullock carts. These machines are equipped each with a receiving hopper that eliminates the necessity of placing the brick carefully on the belt, which is 25 feet long and 14 inches wide and they were thrown into the tail end to be conveyed into the cars. Kerosene engines of 5 horsepower operate the machines and great savings of both time and effort are accomplished notwithstanding cheap native labor. The conveyors are mounted on two wheels having roller bearings and are thus easy to move about. They are made by the George Haiss Mfg. Co., 141st Street and River Avenue, New York. The Tata Construction Co. is a unit of the Tata Iron Steel Company, who control one of the largest iron ore mines in India.

Agency Established.

The Reeves Pulley Company, of Columbus, Indiana, have perfected arrangements with Manning, Maxwell & Moore, Inc., of 11th West Fortieth street, New York, whereby the latter assumes the exclusive agency for the Reeves variable speed transmission in the New York territory. A stock of these products will be carried at the agency together with repair parts, and the agents will also handle the Reeves split wood pulleys. Expert engineers on variable speed transmission will be there to render immediate service.

Economic Studies of Brick Pavement.

Stanley A. Knisely has been appointed to the position of Economist in the organization of the National Paving Brick Manufacturers Association, Cleveland, Ohio, according to a recent announcement by Maurice B. Greenough, Secretary. Through Mr. Knisely's department, it is stated, the Association will intensify its studies of brick pavement service from an economic standpoint and reports will be issued. Mr. Knisely was previously a writer upon economic subjects on the staff of the Cleveland "Plain Dealer," and prior to that connection was with financial and technical journals.

Important Sale of Plant.

Announcement is made in another column of the sale at 11 A. M. on October 13 and 14 of the plant of the Chapman Manufacturing Company at Winchester, Mass., which, it is stated is well equipped for making any mechanical product requiring extreme precision. The sale comprises real estate, machinery, tools, jigs, dies, patterns and other equipment, the property besides the realty including the name, good will and patents for making the Chapman ball bearing spindle, the Auto-Sig air pump, a bicycle coaster brake under license from Rollin Abell and the Allen ball bearing spindle, besides all of the plant equipment, machine tools, etc. etc. The receiver is Willard B. Luther and the auctioneers are J. E. Conant & Co., of Lowell, Mass., from whom catalogs may be obtained.

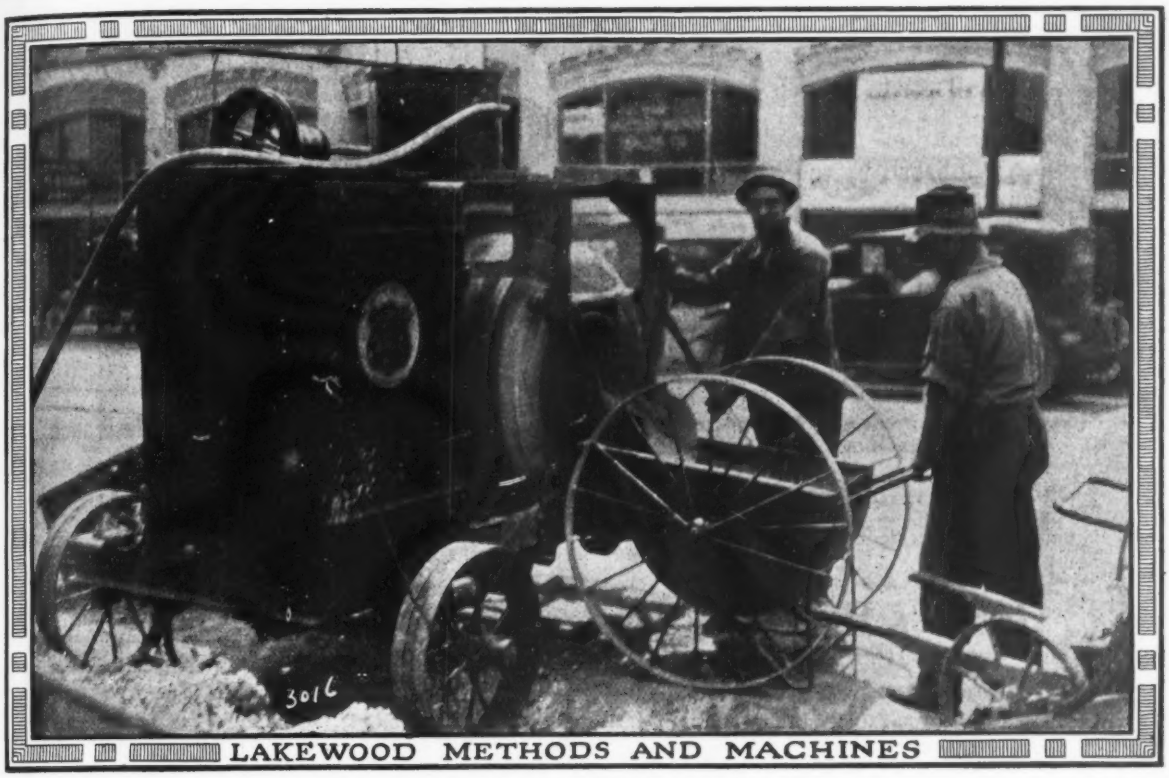
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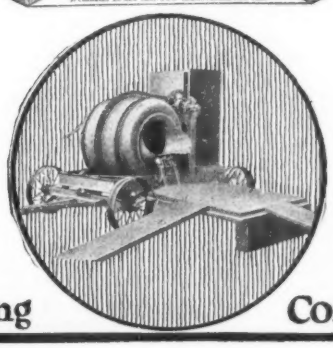


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The City of Cleveland is now included in the list of owners of Lakewood-Milwaukee low charge mixers and concrete carts. For many years Lakewood-Milwaukee mixers have been used by, and favorably known among, such firms as Geo. A. Fuller, New York; Raymond Concrete Pile Co., New York; Mellon-Stuart-Nelson, Pittsburgh; Wells Bros., Chicago; Bent Bros., Los Angeles; Hughes-O'Rourke, Dallas; Fegles Construction Co., Minneapolis.

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A remarkable book brimful of information for traders, has just been published by the New York Curb Market.

This 40-page illustrated book gives a close-up of "AMERICA'S SECOND LARGEST STOCK MARKET." It contains subject-matter of great interest on: dividend records, assets, earnings, etc., etc., of many stocks.

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Furniture of All Kinds	Railroad Equipment
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M. W. ELKINS & CO.
Southern Trust Bldg. **Little Rock, Ark.**

The Officers of Counties, Cities, School, Road and Drainage Districts

are invited to confer with our Buying Department in reference to needed money for public improvements, or for refunding outstanding obligations. We purchase bonds or other evidences of indebtedness for such purposes.

All information will be cheerfully furnished upon request.

VICTOR H. ARNOLD COMPANY, 111 W. Monroe Street, Chicago

NOTICE

"Railroad Contractors"-"Bond Dealers"

Eleven miles of railroad connecting a trunk line railroad with County Seat of one of the most prosperous counties in the state of West Virginia will be constructed at once.

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NOTICE TO CONTRACTORS

We want to buy bonds **issued by cities, towns, counties, school, road or drainage districts that you may be able to take in exchange for work. Address us at our nearest office.**

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Typical of the Possibilities of Doing Business in the South

are the facts given in the following letter:

THE ARCTIC ICE MACHINE COMPANY

REFRIGERATING AND ICE MAKING MACHINERY
AMMONIA FITTINGS AND ICE FACTORY SUPPLIES

Manufacturers Record,
Baltimore, Md.

Canton, Ohio, Sept. 30, 1921.

Gentlemen:

We are just in receipt of your communication of the 28th, inst., and wish to state that our business has been holding up exceptionally well throughout the South. During the past eighteen (18) months we have sold the following plants in the Southern territory:

Standard Ice & Fuel Co.,
Charlotte, N. C.
60-ton, electric driven, raw water ice-making plant.

Victor Cotton Oil Mill Co.,
Gaffney, S. C.
25-ton, electric driven raw water ice-making plant.

Anderson Cold Storage Co.,
Anderson, S. C.
2—25-ton, electric driven, raw water Ice-making plants.

Georgia Ice Company,
Savannah, Ga.
1—100-ton, and 1—50-ton, electric driven, raw water ice plants.

The Arctic Ice Company,
Columbia, S. C.
1—25-ton, electric driven, raw water ice-making plant.

West Point Iron Works,
West Point, Ga.
1—25-ton, electric driven, raw water ice-making plant.

Eufaula Ice, Cold Stge. & Coal Corpn.,
Eufaula, Ala.
1—25-ton, electric driven, raw water ice-making plant.

Peoples Ice Company,
Mobile, Ala.
1—25-ton, oil engine driven, raw water ice-making plant.

E. E. Saunders Co.,
Pensacola, Fla.
1—30-ton, electric driven, raw water ice-making plant.

Polar Ice & Coal Co.,
Anniston, Ala.
1—60-ton, electric driven, raw water ice-making plant.

Birmingham Ice & C. S. Co.,
Birmingham, Ala.
1—50-ton, electric driven, raw water ice-making plant.

Bessemer Ice & Coal Co.,
Bessemer, Ala.
1—60-ton, electric driven, raw water ice-making plant.

Birmingham Ice & C. S. Co.,
Birmingham, Ala.
Reconverting 1—200-ton and 1—100-ton steam driven plants to raw water ice-making plants.

Clarksville Ice & Coal Co.,
Clarksville, Tenn.
1—60-ton, electric driven, raw water ice-making plant.

Southern Spoke & Mfg. Co.,
Shelby, Miss.
1—25-ton, electric driven, raw water ice-making plant.

Union Ice & Coal Co.,
Ruston, La.
1—25-ton, electric driven, raw water ice-making plant.

Republic Ice Company,
New Orleans, La.
1—60-ton, oil engine driven, raw water ice-making plant.

The New Ice Co.,
New Orleans, La.
1—60-ton, electric driven, raw water ice-making plant.

R. P. Hyams Ice & Coal Co.,
New Orleans, La.
1—60-ton, electric driven, raw water ice-making plant.

W. H. Irvin Ice Factory,
Houston, Texas.
1—60-ton, electric driven, raw water ice-making plant.

City Ice & Fuel Co.,
San Antonio, Texas.
1—40-ton, electric driven, raw water ice-making plant.

Texas Ice & C. S. Co.,
Dallas, Texas.
1—60-ton, electric driven, raw water ice-making plant.

Crystal Ice Factory,
Dallas, Texas.
1—40-ton, oil engine driven, raw water ice-making plant.

Lincoln Ice & C. S. Co.,
Dallas, Texas.
1—30-ton, gas engine driven, raw water ice-making plant.

Stubbs & Hall Ice Co.,
Dallas, Texas.
1—40-ton, electric driven, raw water ice-making plant.

Peoples Ice & Storage Co.,
Dallas, Texas.
1—70-ton, electric driven, raw water ice-making plant.

J. J. Ballard,
Fort Worth, Texas.
1—60-ton, electric driven, raw water ice-making plant.

Citizens Ice Company,
Ballinger, Texas.
1—20-ton, oil engine driven, raw water ice-making plant.

The foregoing list consists only of sales for our complete ice-making plants, and does not take into consideration our sales for small ice and refrigerating plants in isolated localities and for industrial purposes.

From present indications our business in the South will be greater within the next four months than any similar period in the history of our organization.

Yours very truly,

THE ARCTIC ICE MACHINE CO.
H. D. Pownall.

PROPOSALS

BOND ISSUES BUILDINGS PAVING GOOD ROADS

PROPOSALS FOR FURNISHING AND INSTALLING PLUMBING SYSTEM. Office, District Engineer, Mississippi River Dredging District, Post Office Box 1017, Memphis, Tenn. Sealed proposals for furnishing and installing plumbing system in warehouse building at U. S. Dredge Depot will be received here until 3:30 P. M. October 10, 1921, and then opened. Further information on application.

Bids close October 19, 1921.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., Sept. 27, 1921.—SEALED PROPOSALS will be opened in this office at 3 p m., Oct. 19, 1921, for an Ice Making Refrigerating Plant in the Kitchen and Mess Building at the U. S. Public Health Service Hospital No. 27, Alexandria, La., in accordance with specification and drawings, copies of which may be had at this office in the discretion of the Supervising Architect. Jas. A. Wetmore, Acting Supervising Architect.

Bids Close October 18, 1921.

PROPOSALS for motion-picture projector, gasoline engine, water meters, receptacles, reflectors, wire and cable, aero lighting switches, lathe chucks, bolts, toilet screws, automobile tires, rubber gloves, soap, gaskets, creosoted piles, paper cups, braided cord, rosin, varnish, enamel, and pencils.—Sealed proposals will be received at the Office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 o'clock a. m., October 18, 1921, at which time they will be opened in public for furnishing the above-mentioned articles. Blanks and information relating to this Circular (1459) may be obtained from this office or the offices of the Assistant Purchasing Agent, 24 State Street, New York City; 606 Common Street, New Orleans, La.; and Fort Mason, San Francisco, Calif.; also from the United States Engineer Offices in the principal cities throughout the United States.—A. L. FLINT, General Purchasing Officer.

Bids close October 3rd, 1921.

$25,000.00 6% Municipal Bonds.

Rockmart, Georgia.

$15,000.00 issue of Municipal Bonds of the Town of Rockmart, Georgia, Polk County, known as "Rockmart Electric Light & Power Bonds", bearing date September 1, 1921, and payable $1,000.00 annually from 1926, and in denominations of $1,000.00 each.

$10,000.00 issue of Municipal Bonds of the Town of Rockmart, Georgia, Polk County, known as the "Rockmart City Hall Bonds", bearing date of September 1, 1921 and payable $1,000.00 annually from 1931, and in denominations of $1,000.00 each.

Said Bonds bearing interest at the rate of six per cent per annum, payable semi-annually on the 1st, day of January and the 1st day of July of each year.

Sealed bids will be received by C. G. Mundy, City Clerk of Rockmart, Georgia, up to eight o'clock P. M. on Monday the 3rd day of October, 1921. Bids will be received for one or both issues of said Bonds and must be accompanied by certified check for five (5) percent of the bid, payable to the Treasurer of the Town of Rockmart.

Town Council reserves the right to reject any or all bids. For any information address C. G. Mundy, City Clerk, Rockmart, Ga.

C. G. MUNDY,
City Clerk, Rockmart, Ga.

Bids close September 19, 1921.

$60,000 6% Municipal Bonds.

Stuart, Fla.

Sixty thousand dollar issue of municipal bonds of the town of Stuart, Florida, Palm Beach county, bearing date July 1st, 1919, and payable annually from 1925 to 1944.

Said bonds bearing interest at the rate of 6 per cent. per annum, payable semi-annually, and the principal and interest on said bonds shall be paid at the Seaboard National Bank, New York City, and at the office of the city clerk of the town of Stuart, Palm Beach county, Florida.

Sealed bids will be received by J. F. Gregg, town clerk of Stuart, Florida, up to 8:30 P. M. at the Town Hall of Stuart, Florida, on Monday, the 19th day of September, 1921.

Town Council reserves the right to reject any or all bids.

Certified check of $1,000 shall accompany each and every bid.

Said bonds have the preliminary approval of John C. Thompson, bond attorney.

J. F. GREGG, City Clerk.

$60,000 5½% Road Bonds.

Stanton, Tex.

The Commissioners Court of Martin County, Texas, solicit bids on an issue of $60,000.00 worth of Special Road Bonds.

Bonds are 20-year serial in $1,000.00 units, dated March 1st, 1921, drawing 5½ per cent. interest, payable semi-annually at Stanton, Texas, Austin, Texas, or New York City.

A certified check for one per cent. shall accompany all bids. Bids to be addressed to O. G. Oden, County Judge of Martin County, Stanton, Texas.

The Commissioners Court reserve the right to reject any and all bids.

Bids close October 18, 1921.

$40,000 6% School Bonds.

CAROLINE COUNTY, MARYLAND
Denton, Md.

NOTICE IS HEREBY GIVEN, That the County Commissioners of Caroline County, will receive sealed bids for the purchase of Forty Thousand Dollars ($40,000.00)) par value of Caroline County, Maryland, School Bonds, up to one o'clock Tuesday, October 18th, 1921, at the office of said County Commissioners in Denton, Md.

The above bonds are offered for sale pursuant to power and authority contained in Chapter 375 of the Acts of the General Assembly of Maryland, 1920.

Said bonds will be dated October 1st 1921, and will be in denominations of $1,000, and will bear interest at the rate of six per centum (6%) per annum, payable semi-annually on the first days of April and October in each year. Said bonds will mature as follows:—$4,000 October 1st, 1926, $4,000 October 1st, 1927, $4,000 October 1st, 1928, $4,000 October 1st, 1929, $4,000 October 1st, 1930, $4,000 October 1st 1931, $4,000 October 1st, 1932, $4,000 October 1st, 1933, $4,000 October 1st, 1934, $4,000 October 1st, 1935.

They will be exempt from State, County and Municipal taxes in Maryland.

Each bid must be accompanied by certified check, bank draft or cash, for an amount equal to five per cent (5%) of the par value of bonds bid for, as a guarantee that the successful bidder or bidders will receive and pay for said bonds upon delivery, unless same are rejected on legal grounds.

The County Commissioners reserve the right to reject any and all bids.

By order of the County Commissioners of Caroline County.

W. C. TODD,
President.

Bids close Oct. 14, 1921.

$70,000 6% Bonds.

Hartsville, S. C.

Bids will be received up to noon of Oct. 14, 1921 on $70,000.00 Town of Hartsville, S. C. Refunding Railroad and Water and Sewer Funding Bonds dated Nov. 1, 1921, bearing 6% interest payable semi-annually at National Bank of Commerce, N. Y. Right is reserved to reject any or all bids. For particulars apply to Mayor, Hartsville, S. C.

$117,000 5½% Road Bonds.

Midland, Tex.

The Commissioners Court of Midland County, Texas, solicit bids on an issue of $117,000.00 worth of Special Road Bonds.

Bonds are 30-year serial, in $1,000.00 units, dated August 1, 1921, drawing 5½ per cent interest payable semi-annually, at Midland, Texas, Austin Texas, or at the Chemical National Bank, New York City.

A certified check for one per cent. shall accompany all bids. Bids to be addressed to J. M. DeArmond, County Judge, of Midland County, Midland, Texas.

The Commissioners Court reserve the right to reject any and all bids.

$97,000 5½% Road Bonds.

Odessa, Tex.

The Commissioners Court of Ector County, Texas, solicit bids on an issue of $97,000.00 worth of Special Road Bonds.

Bonds maturing from one to 30 years serially, in $1,000.00 units, dated Jan. 1, 1921, drawing 5½ per cent. interest, payable semi-annually, at Odessa, Texas, Austin, Texas, or Hanover National Bank, New York City.

A certified check for one per cent. shall accompany all bids. Bids to be addressed to J.T.Cross, County Judge of Ector County, Odessa, Texas.

The Commissioners Court reserve the right to reject any and all bids.

Bids close October 18, 1921.

Notice to Building and Heating Contractors.

Claxton, Ga.

Sealed proposals will be received by the Trustees of Claxton Local School District, Evans County, Georgia, on Tuesday, October 18th, 1921, at 12 A. M. in Claxton, Georgia, for the erecting and heating of a school building for said District in the City of Claxton, according to plans and specifications prepared by Willis Irvin, Architects, 1402-04 Lamar Building, Augusta, Ga.

Plans and specifications may be secured by Building Contractors upon a deposit of $25.00, and by Heating Contractors upon a deposit of $10.00, which deposits are to be returned upon the submission of a bona fide bid and the return of the plans and specifications in good condition to the Architect. Building Contractors may secure extra sets of plans upon a payment of $5.00 per set to cover printing costs; these plans remain the property of the Architect. Plans will be on file in the office of the Atlanta Builders Exchange, Atlanta, Georgia; the office of Willis Irvin, Architect, Augusta, Georgia, and P. M. Anderson, Chairman, Claxton, Georgia.

Proposals for the erection of the building shall be accompanied by a certified check for $1,000.00, and proposals for the heating shall be accompanied by a certified check for $250.00; said checks to be made payable to the order of P. M. Anderson, Chairman. Bonds will be required of the successful bidders. The right is reserved to reject any or all bids.

P. M. ANDERSON, Chairman,
Board of Trustees.

Bids close October 19, 1921.

Notice to Building and Heating Contractors.

Statesboro, Ga.

Sealed Proposals will be received by the City Council of Statesboro, Georgia, on Wednesday, October 19th, 1921, at 12 A. M. in Statesboro, Georgia, for the erecting and heating of a High School Building for the Town of Statesboro, according to plans and specifications prepared by Willis Irvin, Architect, 1403-04 Lamar Building, Augusta, Ga.

Plans and specifications may be secured by Building Contractors upon a deposit of $25.00, and by Heating Contractors upon a deposit of $10.00, which deposits are to be returned upon the submission of a bona fide bid and the return of the plans and specifications in good condition to the Architect. Building Contractors may secure extra sets of plans upon a payment of $5.00 per set to cover printing costs; these plans remain the property of the Architect. Plans will be on file in the office of the Atlanta Builders Exchange, the office of Willis Irvin, Architect, Augusta, Georgia and J. L. Renfroe, Mayor, Statesboro, Georgia.

Proposals for the erection of the building shall be accompanied by a certified check of $1,000.00 and proposals for the heating shall be accompanied by a certified check for $250.00; said check to be made payable to J. L. Renfroe, Mayor. Bonds will be required of the successful bidders. The right is reserved to reject any or all bids.

J. L. RENFROE,
Mayor, Statesboro, Ga.

Bids close October 17, 1921.

Notice to Building and Heating Contractors.

Glennville, Ga.

Sealed proposals will be received by the Trustees of Glennville School District of Tatnall County, Ga., on Monday October 17th, 12 A. M. in Glennville, Georgia, for the erection and heating of a High School Building for said District in the City of Glennville, according to plans and specifications prepared by Willis Irvin, Architect, 1403-04 Lamar Building, Augusta, Georgia.

Plans and Specifications may be secured by building Contractors upon a deposit of $25.00, and by Heating Contractors upon a deposit of $10.00, which deposits are to be returned upon the submission of a bona fide bid and the return of the plans and specifications in good condition to the Architect. Building Contractors may secure extra sets of plans upon a payment of $5.00 per set to cover printing costs; these plans remain the property of the Architect. Plans will be on file in the Office of the Atlanta Builders Exchange, and in the office of Willis Irvin, Architect, Lamar Building, Augusta, Georgia, and C. L. Cowart, Glennville, Ga.

Proposals for the erection of the building shall be accompanied by a certified check of $500.00, and proposals for the heating shall be accompanied by a certified check for $250.00; said checks to be made payable to the order of C. L. Cowart, Chairman. Bonds will be required of the successful bidders. The right is reserved to reject any or all bids.

C. L. COWART,
Chairman, Board of Trustees.

Bids close Oct. 18, 1921.

Water-Works.

(Call for new Bids)

Valparaiso, Fla.

Sealed proposals for supplying all materials and installing complete a water works system in the City of Valparaiso, Fla., will be received by the City Clerk until 7:30 P. M. Tuesday, Oct. 18th, 1921, consisting of twelve thousand feet of grade "B" C. I. pipe sizes 4 to 8 inches; one thirty thousand gallon steel tank on 100-foot tower; one internal combustion motor, belt connected to centrifugal or rotary pump, capacity 150 to 200 G. P. M.; ten fire hydrants; and necessary pipe specials.

Certified check in favor of the City of Valparaiso in the amount of $900 must accompany bids, and only bids for the complete outfit will be entertained. The right is reserved to reject any and all bids.

Plans, specifications and proposal blanks may be had at the office of the Clerk or by mail upon receipt of $5.00.

A. P. KASTLER,
City Clerk.

Bids close Oct. 18, 1921.

Timber Bridge

(Call for new Bids)

Valparaiso, Fla.

Sealed proposals for furnishing piling, lumber, hardware, paint, etc., and also b ds for the erection of one 734 foot pile bent timber bridge, will be received by the Clerk of the City of Valparaiso, Florida, up to 7:30 P. M., Tuesday, Oct. 18th, 1921. Certified check in the amount of $200 in favor of the City of Valparaiso, must accompany all bids and the right is reserved to reject any and all bids. Plans, specifications and proposal blanks may be had at the office of the Clerk or by mail upon receipt of $5.00.

A. P. KASTLER,
City Clerk.

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Bids close Oct. 20, 1921.

State Road.

Tallahassee, Fla.

Sealed proposals will be received by the State Road Department of Florida, at its office in Tallahassee, Florida, till 4 o'clock P. M. on the 20th day of October, 1921, for the construction of a compacted rock base and a bituminous macadam wearing surface, on a section of State Road No. 1, known as Federal Aid Project No. 24, in Columbia County, between Lake city and the Baker County line, approximately 9.89 miles in length.

Alternate proposals will be received on Concrete, Grouted Brick, Asphaltic Concrete, Sheet Asphalt and Rock Asphalt.

Bidders are requested to make their proposals based upon payments being made in cash and also upon receiving Columbia County bonds at par value for not to exceed fifty per cent of the cost of the work.

Plans and specifications may be obtained on application to the State Road Department at Tallahassee, Florida, for the sum of three dollars, or may be examined at the office of the State Road Department in Tallahassee, Florida, or at the office of the Division Engineer at Lake City, Florida.

A certified check or bidders' bond executed by some reputable bonding company, authorized to do business in the State of Florida, in the sum of three thousand dollars, made payable to H. B. Philips, Chairman of the State Road Department, must be submitted with each proposal.

The right is reserved to reject any or all bids.

STATE ROAD DEPARTMENT
H. B. PHILIPS, Chairman. CHAS. A. BROWNE, State Highway Engineer.
This 23rd day of September, 1921.

Bids close October 17, 1921.

Road Improvements

Southport, N. C.

Sealed proposals, on blank forms furnished by the County, addressed to the Board of County Commissioners of Brunswick County, N. C. at Southport, N. C. will be received until Two O'clock P. M., October 17th, 1921, for furnishing all material, equipment and labor for the following work:

Approximately 74,000 square yards of Concrete, Sheet Asphalt, Asphaltic Concrete or Warrenite-Bitulithic Road Paving, complete with the necessary curb and pipe drainage; also approximately twelve concrete culverts, all as adopted by said Board.

Each bid shall be accompanied by a certified check for at least FIVE THOUSAND ($5000.00) DOLLARS. Certified check shall be made payable to the Chairman of the Board of Commissioners of Brunswick County, N. C. A satisfactory "Bidder's Bond" will be accepted in lieu of a certified check.

The right is reserved to reject any or all bids.

Plans and specifications can be seen at the office of the Register of Deeds at Southport, N. C. and at the office of the Engineers at Elberton, Ga.. Copies of the plans and specifications may be obtained from the Engineers upon payment of Twenty Five ($25.00) Dollars. Fifteen Dollars of which will be refunded upon their return in good condition. Specifications may be obtained from Engineers upon payment of Two ($2.00) Dollars.

JOHN JENRETTE,
Chairman.
W. H. WALKER,
Register of Deeds and Ex-Officio Clerk of the Board of County Commissioners.
H. S. JAUDON ENGINEERING CO.,
Engineers, Elberton, Georgia.

Bids close October 25, 1921.

Notice to Contractors.

Raleigh, N. C.

Sealed proposals will be received by the building committee of the State School for the Blind, at the office of G. E. Lineberry, Superintendent, Raleigh, N. C., for the construction of the Superintendent's residence, Addition to the Administration Building, Three Cottages, Boiler House, and Laundry Building and the Tunnels connecting these buildings, until twelve o'clock noon, October 25, 1921., at which time they will be opened.

The work includes the furnishing of all labor, material and equipment for completing the buildings in accordance with the plans and specifications on file at the office of G. E. Lineberry, Superintendent, of the school and in the office of James A. Salter, Architect, Raleigh, N. C.

The contractors receiving the drawings and specifications must deposit with the architect the sum of twenty ($20) dollars as a guarantee that the drawings will be returned and bona fide proposal submitted, when the drawings are returned ten ($10) dollars will be refunded and ten ($10) dollars will be retained for the cost of preparing the prints.

A certified check in the sum of five thousand ($5,000) dollars payable to R. S. Busbee, Chairman, Building Committee, must accompany each proposal, said check to be forfeited if the successful contractor fails to execute contract and to deliver a satisfactory surety bond as called for in the specifications.

Proposals to be addressed to Mr. R. S. Busbee, Chairman, Building Committee. The right is reserved to reject any and all proposals.

Plans may be obtained on application to James A. Salter, Architect, Raleigh N. C.

R. S. BUSBEE,
Chairman.
C. M. WILSON,
A. H. McNEILL,
Building Committee.

Bids close October 17, 1921.

Power Plant Equipment

Crowley, La.

Sealed bids will be received by the City of Crowley, Louisiana, at the office of J. O. Herpin, City Manager, until 10:00 A. M., Monday, October 17, 1921, on the following items of power plant equipment, f. o. b. respective points of manufacture, to wit:

1. One Crude-Oil Engine, between 350 and 400 brake horse power standard rating, complete with all accessories usually furnished by engine builders, including exhaust muffler, outboard bearing and extension shaft to carry direct-connected alternator and exciter, this shaft to be shipped freight prepaid to the electrical manufacturer.

2. One Oil-Engine Type Alternator, 2300 volts, 60-cycle, 3-phase, of capacity and speed to suit selected engine,—without base, shaft or bearings, but with dampening winding, generator rheostat, discharge resistance, foundation bolts, sole plates and pressing rotor on extension shaft furnished by engine builder.

3. One Engine-Type Exciter, of capacity and speed to suit selected Engine and Alternator,—without base, shaft or bearings, but with rheostat, foundation bolts, sole plates and pressing armature on extension shaft furnished by engine manufacturer.

4. One Switchboard, per specifications on file in office of City Manager at Crowley.

Bidders will submit their own specifications, guarantees, etc., and specify earliest possible delivery dates, shipping weights and freight rates to Crowley.

Each bidder on item 1 is requested to submit a complete list of all American installations of the size and type of engine offered.

Each bid on Engine or Electrical Apparatus must be accompanied by certified check drawn in favor of the City of Crowley, Louisiana, for five per cent (5%) of the total amount thereof, which shall be deposited as a guarantee that the bidder will enter into a contract and furnish an acceptable faithful-performance bond for the full amount of the contract within 30 days after his bid is accepted.

The City of Crowley reserves the right to accept any bid, to reject any or all bids, or to contract for either one or two Engines, Alternators, Exciters and Switchboards, on the basis of the prices quoted.

Bids close October 10, 1921.

State Road and Bridge Construction

Odessa, Tex.

Sealed Proposals, for the construction of 24.74 miles of gravel road in Ector County, addressed to J. T. Cross, County Judge of Ector County, Texas, will be received at the office of the County Clerk at Odessa until 10:00 o'clock A.M. Oct. 10, 1921, and then publicly opened and read, at Midland, Texas, at 1:00 P.M. Oct. 10, 1921.

Information may be obtained at the office of R. W. Baker, County Engineer at Big Spring, Texas, and at the office of the State Highway Dept., State Office Building, Austin, Texas.

Cashier's check for Ten thousand nine-hundred ($10,900.00) Dollars, must accompany each proposal.

Proposals shall be submitted in sealed envelopes and marked "Bids for construction of State Highway No. 1, Ector County, Texas."

Bids close October 10, 1921.

State Road and Bridge Construction

Big Spring, Tex.

Sealed proposals for the construction of 34.25 miles of gravel road in Hoard County, addressed to J. T. Brooks, County Judge of Howard County, Texas, will be received at the office of the County Clerk at Big Springs, Texas, until 10:00 o'clock A.M. Oct. 10, 1921, and then publicly opened and read, at Midland, Texas, at 1:00 P.M. Oct. 10, 1921.

Information may be obtained at the office of R. W. Baker, County Engineer at Big Spring, Texas, and at the office of the State Highway Dept., State Office Building, Austin, Texas.

Cashier's check for Fifteen thousand three hundred dollars ($15,300.00) must accompany each proposal.

Proposals shall be submitted in sealed envelopes and marked "Bids for construction of State Highway No. 1, in Howard County, Texas.

Bids close October 18, 1921.

Sewer Construction

Memphis, Tenn., Sept. 23, 1921.

Sealed proposals will be received at the office of C. C. Pashby, City Clerk, City Hall, until 12 o'clock noon Tuesday, October 18th, 1921. for doing the following described work:

Construction of Binghampton sanitary sewer outlet main.

7650 Lineal feet of 33-inch terra cotta pipe laid 6 feet to 20 feet deep in open cut.

1890 Lineal feet of 33-inch terra cotta pipe laid in tunnel.

890 Lineal feet of 21-inch pipe laid 6 feet to 8 feet deep.

3560 Lineal feet 18-inch pipe laid 6 feet to 20 feet deep.

25 Manholes built.

1—60 ft. Siphon.

1—Concrete Spillway.

Specifications and profiles governing the above work may be procured at the office of the City Engineer.

The right is reserved to reject any and all bids.

Certified check for two hundred and fifty ($250.00) dollars, payable to the order of the City of Memphis, or a bidder's bond for a like amount conditioned on the bidder executing the contract, if awarded to him, shall accompany the proposal.

Said check or bond as the case may be, will be returned to the unsuccessful bidder upon awarding the contract, and to the successful bidder when he makes approved bond for the faithful performance of the contract.

Cash payments of this work will be made out of the special sewer funds of the City of Memphis.

By order of the Board of Commissioners of the City of Memphis.

ROWLETT PAINE,
Mayor.

Attest:
C. C. PASHBY.
City Clerk.

Bids close October 10, 1921.

State Road and Bridge Construction

Midland, Tex.

Sealed proposals, for the construction of 26.91 miles of gravel road in Midland County, addressed to J. M. DeArmond, County Judge of Midland County, Texas, Clerk, at Midland, Texas, until 10:00 o'clock will be received at the office of the County A.M. Oct. 10, 1921 and then publicly opened and read.

Information may be obtained at the office of R. W. Baker, County Engineer at Big Spring, Texas, and at the office of the State Highway Dept., State Office Building, Austin, Texas.

Cashier's check for Eleven thousand Three hundred ($11,300.00) Dollars, must accompany each proposal.

Proposals shall be submitted in sealed envelopes and marked "Bids for construction of State Highway No. 1, in Midland County."

Bids close October 10, 1921.

State Road and Bridge Construction

Stanton, Tex.

Sealed proposals, for the construction of 12.79 miles of gravel road in Martin County, addressed to O. G. Oden, County Judge of Martin County, Texas, will be received at the office of the County Clerk at Stanton, Texas, until 10.00 o'clock A.M. Oct. 10, 1921, and then publicly opened and read, at Midland, Texas, at 1:00 P.M. Oct. 10, 1921.

Information may be obtained at the office of R. W. Baker, County Engineer at Big Spring, Texas, and at the office of the State Highway Dept., State Office Building, Austin, Texas.

Cashier's check for $5,400.00 must accompany each proposal.

Proposals shall be submitted in sealed envelopes and marked "Bids for construction of State Highway No. 1, in Martin County, Texas."

CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS WATER POWERS MISCELLANEOUS PROPERTIES

FOR SALE—By owner, cut-over hardwood lands located near railroad and good town. Clay loam soil, underlaid with limestone, similar to lands in Kentucky bluegrass region; lands that will raise 100 bu. oats per acre; wonderful grass and clover land; good climate; good roads; good water. Will sell in tracts of 5,000 acres and upwards. Extra good opportunity for capitalists seeking safe, sane and profitable investment. Address James E. Merritt, 1246 First National Bank Bldg., Chicago.

MICA

FOR SALE—A good Mica prospect in the Mica section of New Hampshire.—extra good showing of white Mica and excellent feldspar. Address P. O. Box 427, Ashland, N. H.

COAL

AVOID COAL shortage and high prices later. Buy coal from us now and save money. Can furnish smokeless, splint, gas, by-product for your plant, home or retail yard. Write or wire for prices. MOORE & HETZEL, Charleston, W. Va.

FOR SALE—2500 acres unimproved coal land in tracts, $35 per acre; has several seams; top drift; adjacent railroad, mines, gas and oil write Cavanagh, McAlester, Okla

RATES AND CONDITIONS.

Rate 30 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. **When the advertisement contains a number of long words, proper allowance should be made.** Terms: invarably cash with order; check, post-office or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c. per line; 300 lines, 26c. per line; 500 lines or more 25c. per line.

COAL LANDS AND MINES

MANUFACTURER PROTECT YOURSELF AGAINST FUTURE COAL SHORTAGE. Experienced operator has coal tract over three hundred acres, partially developed, in the heart of Maryland coal fields; two workable veins, four and six feet thick; unable to complete plant account business depression. Engineer estimates cost of completing plant twenty-two to twenty-eight thousand dollars, with approximate recoverable tonnage three and a half million tons. Assure your coal supply by getting in touch with us. Box 147, Piedmont, West Virginia.

On P. R. R., in Jeff Co., Pa., 1,000 acres of coal, 5 ft. seam, acreage or royalty. Address Alex Waite, Reynoldsville, Pa.

COAL LANDS AND MINES

SOUTHERN COAL PROPOSITIONS. 3800 acres, drift mine on river, 51" seam, nearest coal to Mobile. One mile river frontage. Bargain at $35. per acre.

1000 acres, 50" coal, drift, railroad connection, on river, operating mine, present output 150 tons daily. Price $100,000.

800 acres, high grade domestic coal, 5 to 7 feet seam, railroad connection, slope mine. Price $125,000.

Expert service and reports. Will bear closest investigation. Extra fine investments and operating propositions. Yeatman, Pill & Smith, 2109 First Ave., Birmingham, Ala.

CROSS TIES

We have excellent proposition for Purchasing Agents or users of cross ties in large quantities, both pine and oak. Rail and water transportation facilities. P. O. Box 472, Georgetown, S. C.

LUMBER AND BUILDING MATERIAL

I have for sale two million feet of air-dried boards which can be delivered at once. Address F. C. Shackelford, Box 434, Athens, Georgia.

Dry Hardwood—For Sale
7 Cars 8/4 Hard Maple.
5 Cars 8/4 Beech.
3 Cars 8/4 Hemlock.
H K. CROFOOT, Moravia, N. Y.

LUMBER AND BUILDING MATERIAL WHEN IN NEED of flooring, ceiling, siding, finish, roofers, lath, shingles and dimension; write Stephens Lumber Co., Jacksonville, Fla.; 50 E. 42d St., New York city or Hibernia Bank Bldg., New Orleans, La.

LUMBER AND BUILDING MATERIAL

FOR SALE—CRATING STOCK
Hardwood, pine or hemlock, cut to your sizes, rough or dressed. Also have crating lumber, all kinds and thicknesses. Immediate shipment; low prices. Huntington & Finke Co., Buffalo, N. Y.

PILING — POLES — TIES — For Sale. All Southern woods. We solicit large contracts. Heavy stocks carried at all times. QUICK SHIPMENTS — GRADES GUARANTEED THE BEST. Hall Bros. Cedar Co,. Jacksonville, Texas.

TIMBER

500 ACRES of timber, chesnut, poplar, hickory, oak, some heavy tank bark, thousands of locust posts, etc. Within mile and a half of Railway. Will sell the timber for 5,000 now, and give time satisfactory to buyer for taking it off. Terms if desired. We are too busy in the orchards to handle it and we need more money in our business. Albermarle Orchard Co., Inc., Charlottesville, Va.

TIMBER FOR SALE.
From twenty to one hundred and fifty million feet, in separate tracts, of pine and of hardwood. Deal direct with owner. J. W. Barnes, Savannah, Ga.

TIMBER OPERATION.
FOR SALE—Lumber milling proposition, complete equipment, now in operation, Eastern Carolina; 25,000,000 feet timber; plenty more available; big bargain; $175,000, half cash, balance terms. Address No. 5700 care Manufacturers Record, Balto., Md.

TIMBER LAND

BARGAIN IN FLORIDA TIMBER LAND—34,560 acres virgin pine and cypress, over hundred million feet never cut nor turpentined. Rail and water convenient. Good land for colonization, $6.00 per acre, in fee. Address Van Pelt & Hunter, Miami, Fla.

FARM AND TIMBER LANDS

YOUR OPPORTUNITY to buy a 5,000 acre stock and timber ranch, including a herd of registered cattle and equipment, and saw and planing mill and equippment. Only $12.50 per acre, cash or terms, No trade. J. D. Gerlach, Doniphan, Mo.

HUNTING PRESERVE FOR SALE
Produced $20,000 Worth of Furs in 1919.
Will sell in fee about 15,000 acres containing a large amount of high grade hardwood saw timber; also vast wealth suitable for pulp and paper making. Large variety of soils, much extremely fertile. Will make one of the best stock ranches in the South. Price an inducement. Address P. O. Box 1128, Wilmington, N. C.

CITY PROPERTY

AT MUSCLE SHOALS, ALA.—For Sale: 17½ acres suitable for building lots or plant site, on state road 1 mile from Wilson Dam on Tennessee River 1½ miles from L. & N. R. R., and 1 mile from city limits, Florence, Ala. For price and terms Address 5867 care Manufacturers Record, Balto., Md.

SUBURBAN PROPERTY

FOR SALE
97 acres adjoining the City of Roanoke. Best lot sub-division; big money-maker; good terms act quick. Address No. 5876 care Manufacturers Record.

FRUIT, FARM AND TRUCK LANDS

ARKANSAS

BARGAIN in fine farm foothiles of beautiful Ozarks; 617 acres, 6 miles from Imboden on main line of Frisco; 400 acres fine bottom land in cultivation; 100 acres blue grass, clover and timothy; will produce corn, cotton, wheat, oats, alfalfa and grasses; in fruit belt; fine water, ideal climate; two frame dwellings, four barns, perfect title, no encumbrance; investigate; terms; (Price $70.00 per acre.) I. L. Franks, Imboden, Lawrence County, Arkansas.

DISTRICT OF COLUMBIA

$200,000—979-ACRE STOCK, DAIRY and Alfalfa farm near National Capital, (40 up-to-date buildings) sacrificed to close Estate for $75,000. $25,000 Cash, balance long time 6%. R. B. B. Chew, attorney, 426 Fifth St., Washington, D. C.

FRUIT, FARM AND TRUCK LANDS

FLORIDA

FLORIDA.—Did you ever think about Florida strawberries—marketed in December to May—potatoes, cabbage, lettuce, celery, etc., and the high prices they bring? We also ship in trainload the best oranges and finest grapefruit in the world. Send for 1921 list of groves and farms. Tampa-West Coast Realty Co., Inc., opposite Post-office, Tampa, Fla.

FOR SALE—Everglade muck lands along the Tamiami Trail, also lots in Tamiami Townsite, 28 miles west of Miami. An investment opportunity worth investigating. Realty Securities Corporation, Miami, Fla.

CORRUGATING ROLLS
Robinson Corrugating Rolls, Octagon Rolls 26" diam., 12' long, arranged for placing circular pitch plates. Present plate pitch 2½". Motor Driven by 10 HP Westinghouse Induction Motor. 220 Volt. 3 Phase. 60 Cycle, A. C. Capacity 18 Gauge. Good Condition.

A DANDY PIECE OF PROPERTY
in Florida. 200 acres of good land amongst the hills of Pasco County, with a magnificent grove of about 60 acres producing a good income. 15 acres are in old seedling orange trees, now bearing a good crop, although they have been neither fertilized nor sprayed. 45 acres are in trees 4 to 5 years old, commencing to bear; all trees free from deseases and in good state of growth.
Property borders on two beautiful lakes with an abundance of fishing. Clearings in green hammocks afford glimpses of the lakes of the prettiest effect. 15 acres of excellent land are cleared and ready for planting, gardening or general farming. Good spacious house, several outbuildings, tools and implements. Price $55,000.00, half cash, balance terms.
700 ACRES, ON LAKES, FINE GROVE.
Excellent land in the midst of a scenery of an entrancing beauty. Green hammocks fronting on lakes. A Paradise for an artist. A splendid opportunity for a farmer and developer. 18 to 20 acres in orange trees about 20 years old. Although they have been neither fertilized nor sprayed, the trees are loaded with a crop of fine fruit. Property is near churches, stores, high school and Post Office, has frontage on good highway soon to be asphalted. Of the 80 acres cleared, 30 can be cheaply irrigated. Price $36,000.00 $15,000.00 cash, balance easy.
ALSO
60,000 acres cut over, hammock and pine land, good for subdivision at $5.00 per acre.
Another splendid tract of 10,000 acres, hammock and pine land all in one body, $8.00 per acre.
Round timber tract 60,000 acres, estimated 160 million feet. Phosphate deposit on property. $20.00 per acre. Timber alone worth the money.
Good farming and citrus land 15,000 acres at $6.50 per acre.
200 acres, 60 acres fine grove on lake $45,000.
80 acres, 14 acres good grove, good house $30,000.00
Numerous other smaller properties of every description and values from $500.00 up.
NOTE, All above properties are located in the most beautiful county in the state of Florida.
THE HUNTER PARADISE, THIRTY THOUSAND
acres for sale at $10.00 per acre. Located in the most charming part of Florida only 35 minutes ride from a good town and ten minutes ride from National Highway. This large tract is situated on the Gulf of Mexico and has an area of about 12 by 6 miles. It is interspersed throughout, with boiling springs, creeks and other waters, affording the best salt and fresh water fishing, in addition to having numerous oyster beds. The hunting grounds yield Black Bear, Wild Cats, Catamounts, Fox, Cocus, Opossums, Otters, Panthers, great numbers of Deer and numerous other small animals. Wild Turkey, Marsh Hens and Quails, Ducks in the season frequent the ground in thousands. Comparing its proximity to a Town and Roads it is said to be one of the best hunting grounds in the United States.
A Beautiful Site for a Club house is available on an Island included in the property.
This is the finest property for Hunting and Fishing obtainable at the price, and cannot be duplicated. Interested parties write.
THE INVESTORS REALTY COMPANY,
414 Curry Building, Tampa, Fla.

FRUIT, FARM AND TRUCK LANDS

FLORIDA

LEARN of the Vale of Paradise, where dreams come true. This wonder city is having a magic growth, and a million dollars in municipal improvements are authorized for this year. Every kind of business opening here. We have seventeen miles of protected water front, with gorgeously beautiful home sites. Wonderful homes. Wonderful velvety lawns. Wonderful flowers in semi-tropical profusion. Fishing supreme. Every day you can catch the big fellows until your back aches and your hands blister. Paradise for motor boats, with hundreds of miles of protected waterways with wonder spots to visit. Finest motoring roads in the South. Bathing in bay and gulf wonderful. Healthiest city in America, with no business for doctors. Greatest golf course in America under construction. Coolest place in America in Summer, delightful in Winter. You may own a beautiful home here, with a perpetual income, at practically no investment. Grasp the opportunity of a lifetime. Address THE MAYOR, Valparaiso, Fla.

MARYLAND

FARM FOR SALE 175 a. Stock, Implements, Crop, R. R. Town 3 miles, Automobile Road, Washington, D. C., 40 miles, 2 Houses, 2 Barns, clay soil, Large meadow 100 a. clear, nice stock or Dairy Farm, Fruit, 80 a pasture. Running water. 150,000 feet Timber, near Salt water $7000.00. Terms. H. W. Flagg, Charlotte Hall, Maryland.

MISSISSIPPI

FOR SALE OR EXCHANGE for good income city property, 2,300 acre plantation, 10 miles from capital of Mississippi, or will sell half interest. J. N. Forgy & Bro., Cowan, Tenn.

NORTH CAROLINA

FOR SALE—Farm 198 acres in the best strawberry section of state, 140 miles from Wilmington, 1 mile from good shipping point. Good roads, convenient to schools and churches. Price and terms right. D. E. Pridgen, 609 Chestnut St., Wilmington, N. C.

OHIO

Farms for sale on the head waters of the little Scioto River. C. F. Canter, R. E. Agt., Oak Hill, Ohio, Box 42, R. No. 2.

SOUTH CAROLINA

FOR SALE—Six room house with adjoining cottage of three rooms, garage, servants house, 1¾ acres of ground. In the midst of beautiful pines, good hunting in surrounding country. Mrs. E. S. Pegues, Pinopolis, S. C.

VIRGINIA

FOR SALE OR EXCHANGE—One of the best four hundred acre grazing and stock farms in Virginia, twenty-eight miles South of Washington, D. C. Well stocked and equipped. Will take as part payment city property. Address S. R. Brame, 1620 W. Grace Street, Richmond, Va.

GENTLEMEN'S COUNTRY ESTATE AND MAGNIFICENT COLONIAL RESIDENCE. 375 acres on dandy macadam road; adjoining Sweet Briar College Estate. New York trains stop. Handsome brick, slate-roof, dwelling with 17 elegantly appointed rooms; hot water heat; electric-lights; running water; wonderful view; an ideal place to live. Price $50,000.00. Catalogue free. — Oglesby Real Estate Agency Inc., Lynchburg, Va.

BUSINESS PROPERTY

SAND-BAGS FOR SALE
1,000,000 BAGS 3½ CENTS
NEW bags made from 10½-ounce burlap, size 14x33 inches; will sacrifice at 3½ cents apiece, delivered anywhere. Sample orders; will ship not less than one bale, 1,000 bags. Jos. Werner, 70 Pliny St., Hartford, Conn.

FOR SALE—A well established Steam and Hot Water Heating Business can include Plumbing. Best location in the State of North Carolina. Will stand a close investigation. Reasons for selling have other business. Address No. 5893 care Manufacturers Record, Baltimore, Md.

BUSINESS OPPORTUNITIES

FOR SALE—Lumber Milling Proposition, 5,000 acres in fee, complete equipment, now in operation. West Virginia. 15,000,000 feet of timber. 500,000 feet now on stick. This property will be sold at a bargain. Address Jno. C. Chidester, Weston, West Virginia.

In Knoxville and E. Tennessee, Drug, department, and general merchandise stores a specialty. Factories and industrial sites, business leases. Advantageous commercial and industrial connections made in all parts of the South. CHAS. L. HENCK COMPANY, Knoxville, Tenn.

WHO is interested enough in South America to spend some money on the proposition if the right man shows up? Suppose I am the right man. See me anyhow either for a direct or an advertising campaign. Address No. 5896, care Manufacturers Record, Baltimore, Md.

COTTON IS KING

There are more real opportunities in the South today than in any other section of the Globe; the tide has turned and we are in for a bigger more permanent state of prosperity than ever in the past. If you are interested in making a most profitable permanent connection, where the climate is ideal the year round, and in one of the big centers of activity in the South, with a reputable business concern of long standing, holding a record of big earnings behind it, and a future before it, and if you have the ability, executive or sales and can produce, it may prove of value for you to answer this adv., provided you mean business, and can point to a clean record and invest from fifteen to twenty thousand dollars. Address No. 5883 care Manufacturers Record, Balto., Md.

BANK & LANDS—Controlling interest in going Natl bank, minor interest in 6 nearby banks, owners beautiful residence. Will include several fine farms. Address J. L. McKamey, Imboden, Lawrence Co., Ark.

To manufacturing enterprise of the right kind will give a water power partly developed, on Rivanna river, one mile from C. & O. railroad station (other power sites available), and a reasonable quantity of land at station.

Will join right man in manufacturing concrete brick, etc.: large deposit of sand and gravel, located at water power: have large shale deposits: some manganese and pyrite outcrop. C. E. Jones, Carysbrook, Va.

Excellent opportunity to become identified as an official carrying a good salary, with a large and progressive company selling at wholesale and retail, the following products: Kerosene, Gasoline, Lubricating oils, Greses, Asphalts, Road Oils and other Petroleum Products.

This Company maintains large bulk storage plants and warehouses located in Louisville, Shelby, Elizebthtown, Ky. and Nashville, Tenn. also, twenty, two and one-half ton trucks are required to handle deliveries. Four modern drive-in Gasoline Service stations and several sidewalk pump stations located at central points in Louisville, Ky. Gross sales daily average approximately $2500 and will reach $5,000 daily within a year. Profits are big. Merchandise handled is staple-quick turn-over. No fire, bankrupt or discount sales necessary to move merchandise. Books open for inspection. Analyzed audit by certified Public Accountants, Messrs. Bernstein & Bernstein, appraisal, by Messrs. Lord and Thomas, Chicago. Wide-awake business man with $25,000 cash can make big fortune within five years. Automobile tractors and all kinds of machinery must have gasoline and oils. Unlimited source of supplies. All cards on the table, nothing to hide. If interested, address A. Mathis, Vice-President States Oil Company, Room 806, Intersouthern Bldg., Louisville, Ky.

ELECTRIC MOTOR agents wanted in unoccupied Southern territory by old established concern. Applicants must have financial responsibility and must be able to sell motors. An opportunity to connect with a manufacturer who will co-operate with you to develop business. Address: No.5871 care Manufacturers Record, Balto., Md.

BUSINESS OPPORTUNITIES

Correspondence is invited looking to the establishment of plants for the development of the sugar industry throughout the territory served by the Apalachicola Northern Railroad in Calhoun, Franklin, Liberty and Gadsden Counties, Florida. Thousands of acres already in successful cultivation.

The St. Joseph Land and Development Company is prepared to offer liberal inducements to secure the cultivation of its acreage and the manufacture of sugar.

Port St. Joe enjoys superior advantages for the importation of raw sugars. Address Bryan Snyder, Vice-President, Port St. Joe, Florida.

Water works and electric plant to supply water and light to the suburb of a large City. Fine proposition. Address No. 5875 care Manufacturers Record.

I SPECIALIZE in industrial, warehouse and business sites at and adjacent to Washington, D. C.

M. B. HARLOW,
Harlow Building, Alexandria, Va. Colorado Building, Washington, D. C.

WANTED—A good-sized block of high-grade stock of exceptional earning possibilities to market among our large clientele. Money must be for expansion. Wiers & Co., 115 Broadway,, New York Established 1894.

PATENT ATTORNEYS

JACK A. SCHLEY,
Patent and Trade-Mark Attorney,
306 Interurban Building, Dallas, Tex.
319 McGill Building, Washington, D. C.

PATENT-SENSE.
"The Book for Inventors and Manufacturers."
FREE. WRITE
LACEY & LACEY,
Dept. 15, Washington, D. C. Established 1869

PATENTS.—Booklet free. Highest references. Best results. Promptness assured. Watson E. Coleman, Patent Lawyer, 624 F St., Washington, D. C.

INVENTORS—Send sketch or model of your invention, for opinion concerning patentable nature, and exact cost of applying for patent. Book, "How to Obtain a Patent," sent free. Gives information on patent procedure and tells what every inventor should know. Established 25 years. Chandlee & Chandlee, 412 7th St., N. W., Washington, D. C.

PATENTS, TRADE-MARKS AND COPYRIGHTS.—Write for our Free Illustrated Guide Book and EVIDENCE OF CONCEPTION BLANK. Send model or sketch and description of your invention for our opinion of its patentable nature free. Highest references. Prompt service, Reasonable terms. Victor J. Evans & Co., 712 9th St., Washington, D. C.

BUSINESS PROPERTY

WASHINGTON, D. C.

WE SPECIALIZE IN

Choice Chain Stores,
Railroad Sidings and Warehouses.
Business Properties.

WEAVER BROS., 735 15th Street N. W.

FACTORY SITES

PROPERTY FOR SALE
WILMINGTON, N. C.

103 acres of improved land with 2000 ft. of deep water, on the former site of the Carolina Shipyard, with 450 ft. dock 75 feet wide. Complete fire, electric and water systems. Shipyard now being dismanteled. An ideal site for manufacturers desiring rail and water facilities.

Maryland Wrecking Company,
Wilmington, N. C.

FACTORY SITES

ADA, OKLAHOMA FACTORY SITES FREE
CHEAP NATURAL GAS FOR FUEL
PLENTY OF PURE SPRING WATER
TWELVE DIFFERENT RAW MATERIALS
THE BEST LIVING CONDITIONS
EXCELLENT TRANSPORTATION FACILITIES
INVESTIGATION INVITED BY CHAMBER OF COMMERCE.

BALTIMORE

FACTORY

SITES

William Martien & Company.

1413 Lexington Bldg.,

Baltimore, Md.

INDUSTRIAL PLANTS FOR SALE

COTTON MILL

SOUTHERN COTTON MILLS.
We have for sale two cotton mills.
One of 40,000 spindles.
One of 4200 spindles.
Write or wire for particulars.
F. C. ABBOTT & CO.,
Trust Building, Charlotte.

WOODWORKING PLANT.

FOR SALE—Industrial plant located on main line Southern Railway in city of High Point, N. C. Consists of several acres of land, two splendidly constructed factories, engine room, drying plant and equipment new machinery. Primarily a furniture factory, but well suited for any furniture specialty. Address Atlantic Bank & Trust Co., Greensboro, N. C.

FOUNDRY AND MACHINE SHOP

Well equipped foundry and machine shop with good established trade on line of Southern Railroad in Western North Carolina. Will lease to reliable parties or sell. Owner's time taken up with other matters. If interested advise No. 5878 care Manufacturers Record, Baltimore, Md.

FACTORY BUILDING

FOR SALE OR LEASE

3 Large Brick houses 200x100-ft. each one of these being 4 story with elevator, 1 iron-clad house, 2 office buildings, 1 boiler house, 1 nice two-story residence with outbuilding and stable. About 16 acres ground, just out of city limits on L. N. with switch to all buildings and with plenty water. With no city tax or city license and good point to ship into coal, oil and timber fields, makes this an ideal place for factory. Would consider part of purchase price in stock. Bourbon Storage Co., Paris, Ky.

TOY FACTORY

FOR SALE—Factory manufacturing patented, mechanical wooden toys, thoroughly equipped, plenty trained labor. Toys are a success, and are being handled by biggest toy houses in America. Plant can be moved at small expense to another city. Splendid opportunity. For particulars, write Lock Box No. 67, Cambridge, Maryland.

TIGHT BARREL HEADING PLANT

UNUSUAL OPPORTUNITY — Complete tight barrel heading plant in good condition located in Lousiana town of forty thousand—plenty cheap timber—will sell liberal terms to right parties—For sale and owned by a bank able to finance proposition. Address No. 5889, care Manufacturers Record, Balto., Md.

ADVERTISING AND LETTER WRITING

We write
CATALOGS THAT APPEAL.
CIRCULARS WITH A PUNCH.
FORM LETTERS THAT PULL.
ADVERTISEMENTS FULL OF PEP.
Consultation free—Prices right.
Efficient Advertising, Desk 2, Oakton, Ind.

MERCHANDISE WANTED

SPOT CASH for surplus merchandise job lots, close-outs, discontinued lines, goods-ordered-and-left-on-hand, etc. (no machinery). No quantity too large. Quick cash for real bargains. Fantus Bros., 529 S. Dearborn, Chicago, Ill.

INFORMATION WANTED.

What is the latest available authentic information worth to you? General information bureau; congressional and legislative information; general research work; briefs; digests; codifications and abstracts. Interviews. Investigations. General business representative. Materials for essays, debates, theses, sermons, speeches, lectures, arguments, addresses, editorials, and special articles on any subject and for any occasion. Card, analytical, intensive and general index work. Concordances. If you want thorough, conscientious, individual, expert work procure the services of Wm. McAfee Goodwin, District National Bank Bldg., 1406 G St., N. W., Washington, D. C.

INDUSTRIES WANTED

MISCELLANEOUS

HENRYETTA, OKLAHOMA, HAS:
60 Active Coal Mines, 300 Oil Wells, 6,000,000 cubic feet daily of Fuel Gas, 12 Schools, including Senior and Junior High with College affiliation.
Modern Churches, Tested Drinking Water with ample supply for factories. Adequate supply of Male and Female Labor.
Good Climatic conditions, Quick Railroad Service—and
Offers Free Sites—from a city lot to acreage property—as an inducement for manufacturing enterprises.
P. S.:We have an assessed valuation of $4,400,000 against an outstanding indebtedness of only $293,000. Also our Bank Deposits during the dull season are running close to $4,000,000.
Our 48-page Official Publication free on request.
HENRYETTA CHAMBER OF COMMERCE.
Ben C. Eastin, Secretary,

LURAY, VA., location of Luray Caverns, one of the best advertised towns in the world, with a dozen industrial plants, wants more. On N. & W. R. R. and projected Lee highway. Labor reasonable and abundant, 1600 H. P. hydro-electric plant. Water supply from Blue Ridge mountains. Unsurpassed social, church and school advantages. Write Luray Board of Trade.

YOU WILL TRAIN with a live crowd when you locate your factory in Hattiesburg, Miss. For details write the Chamber of Commerce.

REFRIGERATOR FACTORY

Nashville Chamber of Commerce wishes to correspond with responsible parties relative to establishment of refrigerator manufacturing plant. Unique opportunity in virgin field. Very attractive proposition can be made to right parties. Address W. R. Manier, Sr., Secy., Nashville, Tenn.

HOTEL

HOTEL FREE—$15,000 lot and $5,000 Cash, donated to any responsible party who will build a modern fire-proof Hotel of 50 rooms or more. This lot is the best Hotel site in the City. Main Hotel recently burned. Best Hotel City in the South. There will be no taxation on this building for a period of five years. If interested write Aberdeen Chamber of Commerce, Aberdeen, Miss.

PRINTING AND EMBOSSING

BETTER PRINTING for less money. Printing users send for free samples and standardized prices of a thousand items. E. Fantus Co., Printers 523 S. Dearborn St., Chicago, Ill.

LABELS AND RUBBER STAMPS

ARTISTIC advertising stickers! Attractive Courtesy Seals! Interesting samples free. All kinds of printing, autograph signatures, rubber stamps and Parcel Post lables. Edw. Harrison, 940 Homestead St., Balto., Md.

INCORPORATING COMPANIES

ARE YOU GOING TO INCORPORATE—reorganize or consolidate, are you planning to promote or finance any proposition? If so, write us for particulars. We render service everywhere.
National Legal Service Company,
Suite 436, Ridge Building,
Kansas City, Missouri.

FINANCIAL

"THE Betrayal of the People in the Federal Reserve Act," T. Cushing Daniel, author. This "International Bankers' Gold-Basis Scheme" has produced and can produce nothing but disaster. Read the remedy in this book and act at once to protect your business, your family and your country. Popular Edition, 25 cents. The Monetary Educational Bureau, 1416 F Street, Washing

SITUATIONS WANTED

MAN of high character and wide experience in business requiring skill, executive ability and hard work desires position with some large Corporation or Manufacturer where loyal and faithful service will be appreciated. Address M., Box 432, Wilmington, N. C.

POSITION WANTED—Trained as Chamber of Commerce Secretary. Experience as branch manager—freight and passenger departments railroads—good knowledge all-round business—working knowledge of law. Married. Age upper thirties. Now employed. Seeking change of position. Any line. Address E. J. Bonner, 405 West Sixth Street, Sterling, Illinois.

BOOKKEEPER, CREDIT MAN, (21) years of age desires connection with a large corporation with permanant position and chance to learn the business and advancement. Can furnish A1 bank references. Address No. 5894, care Manufacturers Record, Baltimore, Md.

Successful commercial organization secretary and manager with several years of experience contemplates change in near future. Man of highest calibre and ability. 35 years of age and married. Good organizer. Wants to train with live crowd or would start new organization. A-1 references. Address: No. 5891 Manufacturers Record, Baltimore, Md.

WANTED—Position as secretary or manager of a live commercial organization in growing town or in any firm or company where experience and executive ability are required. Have had much experience in important surveys for and management of social service work in cities and states. Graduate in law, attended classes for commercial secretary work. 37 years of age, married. Christian, and can furnish highest references as to ability and character. Address No. 5890, care Manufacturers Record, Balto., Md.

AGENCIES WANTED

BUSINESS MAN with office in Atlanta, Ga. would like to handle sales in Southern territory for manufacturer of high grade specialties in iron, steel, aluminum, brass or bronze. Address No.5872 care Manufacturers Record, Baltimore, Md.

Manufacturers Agents (executive experience technical and mechanical training) with traveling salesman, calling upon dealers, factories, mills and mines in Alabama, Miss., and Florida can take on commission several accounts; machinery, mill, building and farming supplies. Address No. 5888 care Manufacturers Record, Baltimore, Md.

MEN WANTED

EXECUTIVES WANTED
Business shows upward trend—many concerns now considering men of ability for responsible positions. We put you in touch with them. Our service guaranteed. Details free. The Cleveland Vocational Bureau, 424 Bulkley Bldg., Cleveland, Ohio.

MEN WANTED

GENERAL MANAGER:—Man of wide experience in machine shop, foundry and pattern shop production of special machinery and general contract work. Must supervise estimating and assume full responsibility for successful management. Give full details of experience, age, basis of remuneration and business that could be influenced through connection. Established twenty years, vicinity Philadelphia, invested capital $300,000. To what extent will you back your ability by investment to share proportionately in profits. Address No. 5895, care Manufacturers Record, Baltimore, Md.

IF ACTUALLY QUALIFIED for salary between $2500 and $25,000, communicate with undersigned, who will negotiate strictly confidential preliminaries for such position; executive, administrative, technical, professional; all lines. Not an employment agency. Undersigned acts in direct confidential capacity, not jeopardizing present connections. Established in 1916. Send name and address only for explanatory details. R. W. Bixby, Inc., 303 Lockwood Bldg., Buffalo, New York.

WANTED: Experienced Mill Supply man capable of taking full charge of well established Mill Supply Department in Virginia. Only those having executive ability and experience need apply. Good position for right party. Address No. 5887 care Manufacturers Record, Baltimore, Md.

SALESMAN—One who is calling on power plants in any part of Pennsylvania, New Jersey, Delaware, Maryland to sell on commission as side line high grade article that le needed and wanted by every power plant. Address No. 5880 care Manufacturers Record, Baltimore, Md.

MACHINERY AND SUPPLIES

FOR SALE—One 600 HP Sorge-Cochrane Hot Process Water Softener, capacity 2000 gal. per hour, complete with chemical solution tank, feed apparatus, filter, etc. Address Draycott Mills, Inc., Fulton, N. Y.

PIPE FITTINGS, valves, electric wire contractors' blocks, etc. Low prices. Pratt Thompson, 220 E. Lexington St., Baltimore, Md.

BOILERS FOR SALE

4-512 H. P. Class S-26 Stirling Boilers-Hand Fired Practically new—160 lb. working pressure.

WILSON & CO.
Purch. Dept.
41st & Ashland Ave.
Chicago, Ill.

FOR SALE CHEAP—Ten Woodworking Machines perfect order, seven motors, Dixie blow system, worth four thousand, will sell for twenty-five hundred on the floor. W. E. Rouse, 234 25th St., Newport News, Va.

DRILLS HIGH SPEED 40 per cent. off, carbon 70 per cent. off. Pipe taps 50 per cent. off. Limited quantity. Wood rasps 70 per cent. off. Machinery Clearing House Corp., 718 E. Pratt St., Baltimore, Md.

ROAD ROLLER, 3-wheel, 10-ton Russell with compound engine, 150-lb pressure boiler, used about ninety days, overhauled, tested, painted and practically new. Price, $1,800 F. O. B. Wytheville. Other ROAD MACHINERY bargains. R. P. Johnson, Wytheville, Va.

MACHINERY AND SUPPLIES WANTED

WANTED—2700' ¾" and 2000' 1" Galvanized Iron Pipe complete with couplings. Quote lowest delivered prices. Blue Ridge Lumber Company, Lynchburg, Va.

SPECIAL ADVERTISEMENTS OF GENERAL INTEREST

We Want MANUFACTURERS

Can Offer Plenty of Labor

A Delightful Climate; Adequate Railroad Facilities.

Write us for further information

J. I. RHODES, Chairman
Finance and Industrial Committee
BASIC, - - - - VIRGINIA.

TRENCHING AND BACKFILLING



For Sewers, Water Line, Gas Lines, Pipe Lines. Work done by lineal foot of trench or day rental. Experienced operators and first-class equipment. We have equipment in nearly every State—available on short notice. Write for information and circular.

GENERAL ENGINEERING AND CONSTRUCTION COMPANY
1800 14th Ave. Rockford, Illinois.

NOTICE OF SALE

Of Real Estate and Personal Property.

In the matter of

SOUTHERN HOSIERY MILLS, Inc.

Bankrupt.

In pursuance of the order to me directed, I will offer at public sale by auction on the 10th day of October, 1921, at 11.00 o'clock a. m. on the premises of the bankrupt in the town of Burlington, North Carolina, to the last and highest bidder for cash all of the real estate and all of the personal property belonging to the bankrupt.

Parties interested in the manufacture of hosiery would do well to inspect this property and be present on the day of sale. Any information required by prospective bidders will be gladly furnished by the undersigned trustee in bankruptcy for the estate of the Southern Hosiery Mills, Inc.

M. W. McPHERSON,
Trustee in Bankruptcy.

NEW ORLEANS

Sales Representative—Storage—Delivery

A New Orleans firm now representing several large manufacturers of nationally known products has ample facilities to care for further lines. Will act as sales representative or merely storage and delivery.

Large warehouse, private switch track, and adequate loading facilities. Desk space with phone and other conveniences may be had if desired. Address

A-238 care Manufacturers Record
Baltimore, Md.

Receiver's Sale of Valuable Foundry Property

Being the Real Estate nad full equipment of The Emory Steel Casting Co., situated on South Charles Street, Hanover Street and alongside the B. & O. R. R., Baltimore, Md., to be sold on the above premises by Public Auction on Monday, Novemeber 21st, 1921, at 10.00 o'clock a. m. The plant has a large frontage on South Charles Street running through to Hanover Street and alongside the B. & O. R. R. with siding into the property. It has approximately 16,000 square feet of ground about 8,700 square feet of floor space.

Also All the Machinery

including 1½ ton electric furnace, electric annealing furnace, core ovens, compressors, moulding machines, vibrators, mixers, grinders, motors, etc., being full equipment for the manufacture of steel castings. Further particulars from the undersigned Receivers.

N. B. Labor and housing conditions in Baltimore good.

Randolph Barton Jr. John D. Nock Receiver's
207 N. Calvert St. Baltimore, Md.

Sam W. Patterson & Co.
AUCTIONEERS, Baltimore, Md.

By J E CONANT & CO - Auctioneers

OFFICE LOWELL MASSACHUSETTS

A FINE MANUFACTURING PROPERTY OF MEDIUM SIZE
AN EXTENSIVE INSTALLMENT OF STANDARD MACHINE TOOLS

The property herewith set forth is pledged to the highest bona fide bidders at absolute public sale—free from encumbrance—who comply with the Terms and Conditions of Sale. An important and good and exceptionally well located manufacturing property of recent origin and late type and medium size—in one lot. An extensive instalment of standard machine tools and standard mechanical small equipment and everything of the very highest class and latest type and much of it brand new—in lots to suit purchasers. The plant is known as that of the Chapman Manufacturing Company at Winchester Massachusetts—within ten miles from Boston—with adequate steam railroad and trolley cars and state highway connection. The first building was erected in 1909 and the last and more important building in 1918. Rarely is a plant situated in about the centre of such a broad and varied and successful manufacturing district. Labor is not a problem here. The property extends from the Boston & Maine Railroad to an important thoroughfare and the trolley cars. The machine tools include universal and automatic and plain and cylindrical and internal and hand grinding and milling machines; Gridley and Acme automatic screw machines; floor and bench screw cutting engine and turret lathes; upright and sensitive and multiple spindle bench and floor drills; bench and floor tapping machines and arbor presses; bench polishing machines; Bradley hammers; gas furnaces and blacksmith's equipments; electric motors; also one hundred and forty-nine tons of steel; leather belting and etc. etc. etc. etc., etc.; three hundred lots mechanical small equipment. The sale will take place upon the premises regardless of any condition of the weather on Thursday the thirteenth day and on Friday the fourteenth day of October 1921 beginning **very promptly** at eleven o'clock each forenoon. Illustrated and descriptive catalogue upon application at the office of the Auctioneers—where all inquiries **must** be made. WILLARD B. LUTHER, Receiver.

If You Are Interested in the South

You need the

Manufacturers Record
Exponent of America

If you are not a regular subscriber and do not receive every issue, you are missing many opportunities to keep closely in touch with the section you are interested in.

Send Us Your Subscription Today

MEMBER:
Associated Business Papers, Inc.
Audit Bureau of Circulation.

PUBLIC AUCTION SALE OF BANKRUPT'S ESTATE

Pursuant to the order entered at Lynchburg, Va., in the Western District of Virginia, on September 12th, 1921, by R. C. Blackford, Esquire, Referee in Bankruptcy of the United States District Court for the Western District of Virginia "In the Matter of Jobbers Overall Co., Inc., Bankrupt," the undersigned L. P. Hammond, Trustee in bankruptcy of the Estate of Jobbers Overall Co., Inc., Bankrupt, will, on the following described real estate, offer for sale, free and clear of liens, at public auction, for cash at

11 O'CLOCK A. M., ON FRIDAY OCTOBER 14, 1921,

the following described remaining properties constituting parts of the aforesaid Bankrupt's Estate, and including especially the real estate in the city of Lynchburg, Va., and hereinafter described, viz:—

1st. As a separate parcel, in one lot, all of the real estate and buildings thereon complete, with elevating and conveying equipment attached to the buildings and the motors therefor, plumbing, heating, ventilating, communicating and automatic sprinkler equipment and fixtures, and electric wirings and fittings for light and power circuits. Said real estate is situated in Lynchburg, Va., and is bounded generally by Twelfth Street, Campbell Avenue, Fourteenth Street and the line of the Lynchburg and Durham Division of the Norfolk & Western Railway, and includes also all the rights, title and estate of the Bankrupt in that part of Thirteenth Street between Campbell Avenue and the said line of said railway. Said real estate embraces practically two city squares, and has upon it a large concrete fireproof factory, especially adapted to the manufacture of overalls, and also a large concrete and brick dormitory building suitable for housing and accommodating employees. The plant is comparatively new and the factory constitutes one of the best overall manufacturies in the United States. It is readily adaptable to other manufacturing and industrial uses. The factory building is susceptible of being divided into three distinct units, and includes offices and all modern conveniences. A railway side-track enters the building so that cars may be unloaded and loaded within the factory.

2nd. As a separate parcel, in one lot, all sewing machines, electric motors, other than those above mentioned, sewing machine tables with their fixtures, baling machinery, machine tools, cutting knives with spare and repair parts therefor, and trucks, automobiles, and all of the furniture and fixtures other than in the dormitory building, including all office furniture and equipment of every kind, addressographs and multigraphs, adding and typewriting machines and time clocks.

3rd. As a separate parcel, in one lot, all of the balance of the finished overalls. This balance will amount to approximately 20,000 dozen overalls. Definite quantities will be announced at the sale.

4th As a separate parcel, in one lot, all of the balance of raw and incomplete materials and supplies, including denims, drills, buttons, buckles, thread, and other cloth and fabric materials, suspenders and suspender parts.

5th. As a separate parcel, in one lot, all of the furniture and furnishings located in the building known as the "dormitory."

6th. As a separate parcel, in one lot, the accounts and bills receivable and claims of every nature, including claims for goods sold, for damages arising out of breach of contracts and otherwise. (There will be excepted, however, from this item all cash or monies held by or for the Trustee, or in any bank upon certificates of deposit or otherwise for the bankrupt's estate, and certain bills and accounts receivable, claims and rights of action.) The items covered by and offered under this paragraph will be definitely described when offered at the sale.

7th. As a separate parcel, in one lot, all brands, copyrights, trade-marks, trade-names and good-will forming part of the estate.

8th. As a separate parcel, in one lot, all of the stock investments (excepting 14,650 shares of common stock in the Blue Buckle Cotton Mills, Inc.). This item includes 200 shares of the capital stock of the Lynchburg Home Building Company.

9th. As a separate parcel, in one lot, 14,650 shares of common stock in the Blue Buckle Cotton Mills, Inc., of the par value of $100 per share.

The properties set forth in the foregoing paragraphs numbered "1st" to "9th" inclusive, will be first offered in separate and distinct lots as set forth in said paragraphs, respectively, and immediately thereafter the Trustee will offer:

10th. As an entirety, and in one parcel and lot, all of the aforesaid said assets of the bankrupt's estate, including all real and personal property of every nature and description (with the same exceptions set forth or provided for in paragraph "6th" above). The bidding for the properties when so offered as an entirety will begin at the aggregate of the highest bids received for the aforesaid separate parcels thereof.

The Trustee invites prospective buyers to inspect the properties. As there may be bidders concerning whose solvency the Trustee will be uninformed, the Trustee reserves the right to require of any such bidders, before crying their bids, the deposit with the Trustee of a certified check for $1,000, payable or endorsed to the order of the Trustee upon one of the National Banks doing business in the City of Lynchburg, Va.

L. P. HAMMOND,
Trustee in Bankruptcy of Jobbers Overall Co., Inc., Bankrupt.

DAYTONA, FLORIDA

(The Atlantic City of the South)

NEEDS HOTELS AND APARTMENTS

We have: A fast growing community—
—30 miles of the finest beach in the world.

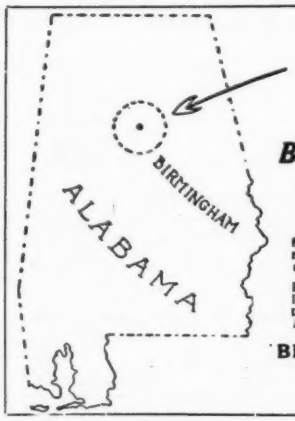
—90 miles of ocean and River Shore Line offering finest building sites.

—a population the year around of 10,000.
—a popular tourist resort, and facilities.
Best drinking water and wonderful climate.

The most attractive summer and winter point in Florida

Address—

CHAMBER OF COMMERCE



Plant Sites For Sale in the Birmingham District

HYDRO-ELECTRIC POWER
EQUABLE CLIMATE

Sizes to suit all needs on all railroads. Supplies of coal, coke, iron and steel within trucking distance.

Labor situation better than in other industrial centers. Hydro-electric power available. Equable climate. Address

BIRMINGHAM REALTY CO.
Owners
BIRMINGHAM, ALA.

CHOICE OPPORTUNITY FOR SALESMEN

A client of ours wants to get in touch with experienced corrugated culvert salesmen, road machinery salesmen and bridge sales engineers. Some choice territory open for a few good men. In answering ad state briefly experience, age, etc.

A real opportunity for a real hustler.

ADDRESS

ROSE-MARTIN, INC.,
1400 Broadway, New York City, N. Y.

RESALE DEPARTMENT

MACHINERY EQUIPMENT SUPPLIES

For Sale
USED MACHINERY

1—Blake 9"x5" Steam Pump. $150.
2—Goulds 6"x5" Pyramid Belt-driven Pumps. Price each $75.
1—Goulds 5"x6" Belt-driven Triplex Pump. Price $250.
1—35 H. P. Orr & Sembower Vertical Steam Engine. $225.
1—6 H. P. Otto Horizontal Gas Engine. $175.
1—3' (Old Style) Radial Drill. $350.

Second-hand Machine Tools of all descriptions

1 H. P. Smith 8" 4-side Moulder, in good condition. Price f. o. b. location near Baltimore. $825.

Straight Turning Tool Holders for 18", 20", 24" to 36" wing Lathes, complete with high speed steel bits and wrench. $3.00 each.

PULLEYS—SHAFTING—HANGERS
FAVORABLE PRICES

Kemp Machinery Co.
Baltimore, Md.

WATER TUBE BOILERS

4—382 H.P. Stirling.	150 lb
4—318 H.P. B. & W.	150 lb.
2—400 H.P. B. & W.	150 lb
1—350 H.P. B. & W.	150 lb
2—400 H.P. Erie City	150 lb.

Also
H. R. T. Marine and firebox Boilers of all sizes

The Markman Engineering Company
111 West Monroe Street
Chicago, Ill.

Martins Rebuilt Machinery

Air Compressors 100 ft. to 1,360 ft.
Boilers, 10 to 250 Horse Power
Corliss Engines, Gas Engines
Rock Crushers Crusher Rolls
Log Washers Rock Drills

Ask For Our Pink Monthly Bargain Sheet

E. A. MARTIN MACHINERY CO.
501 to 531 School St. Joplin, Mo.

BOILERS PRICED LOW

3—72" x 18' Wickes H. R. T. 125 lbs.
2—250 H. P. Wickes W. T. 150 lbs.
All Kinds of Machinery

MILES MACHINERY CO.
SAGINAW, MICH.

FOR SALE

1—250 H. P. Ball Engine, Serial 3918 D. C. to 150 K. W. Westinghouse Generator No. 147140. The entire unit is complete and in first class condition.

BENJAMIN SMITH
Corner Smith & West 11th St., Charlotte, N. C.

FOR SALE

39 Worthington Pumps 4½x2¾x4
25 " " 5¼x3½x5
6 " " 6x4x6
(The above pumps for fuel oil)
150 No. 486 Lunkenheimer Lubricators
19 No. 1 Reilly Heaters.
9 No. 2 " "
20 No. 3 " "
This stock in excellent condition.
Write or Wire.

GILBERT & BARKER MFG. CO.
SPRINGFIELD, MASS.

FOR SALE
400 K. W.—D. C.

Westinghouse Generator, Direct connected to Wetherill heavy duty Rolling Mill type, slow speed, Double Eccentric.

CORLISS ENGINE

Condition equal to new.
Attractively priced.

POWER EQUIPMENT CO., Engrs.
1809 Buttonwood St., Philadelphia, Pa.

Will pay $600.00 for steam or gasolene self-propelling light road crane for sixty-five working days to dig ditch 18,000 cu. yds. ¾ or ½ yd. clamshell with teeth. We have experienced operator and will return in as good condition as we receive. Soft soil.

MEREDITH BROS. CONSTR. CO.
114-115 College Place, Norfolk, Va.

50 H. P. Fairbanks-Morse
FUEL OIL ENGINE FOR SALE

Throttling governor—Suitable for electric light plant—perfect condition—demonstration given.

THE C. M. KEMP MFG. CO.
Baltimore, Md.

Your Products Exhibited
in the
BUILDERS' EXCHANGE
BALTIMORE, MD.

Will give you results in actual business, Exhibits on ground floor
Write for information

WANTED

A thoroughly equipped saw mill outfit and from fifty to one hundred million feet of pine mostly long leaf. Please give location, estimate and price. Address:

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MOBILE, ALABAMA.

SACK AND BARREL ELEVATOR
FOR SALE

Due to a surplus of elevators—will sell reasonable—practical and economical sack and barrel elevator 90 feet high complete. Condition A-1. Particulars write:

The Douglas Public Service Corporation
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OPPORTUNITY

Have you a used engine, air compressor, rails or equipment of any kind you are not using? Here is your opportunity to turn them into cash. Use our Resale Department for good results.

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FORSALE—Shipyard Salvage
LOW PRICES

Gantry cranes, derricks, pile driving equipment, motors, pumps, concrete mixers, milling machine, cut-off saw, Universal saw bench, pipe threading and cutting machines, fire pump and complete fire equipment, emery grinder, emery stones, rod bending machines, edger and ripper, hoisting engine, band saw, gasoline wood saws, jacks, flat cars, air tools, oil paint, varnish, large quantity of small tools, carbic lights, toilets, sinks, urinals, aggregate, 70lb relaying rail, asbestos, chain, steel cable, manila rope, round reinforcing iron, large quantity of fittings, bolts, etc.

Anchors, anchor chains, compasses, search lights, large quantity of ship outfitting equipment.

Flat top desks, card filing cases, typewriters, comptometers, adding machines, office stools and various small equipment.

We are selling new material far below present wholesale prices.

For descriptive lists, write:

H. A. STONE & COMPANY,
BENJ. R. POWEL, Resident Manager,
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SEND FOR OUR CATALOGUE IF IN NEED OF TOOLS AND EQUIPMENT

STOCK INCLUDES:

Air Tools
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Bolt Headers
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Buffing Machines
Cars (R. R.)
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Cranes—Gantry
Cranes—Monorail
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Grab Bucket
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Locomotive—Steam
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Planers
Pumps
Punches
Riddle
Rivet (Headers)
Rolls (Bending)
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Saws
Shapers
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Tables (Punch)
Tables (Roller)
Tanks (Oil)
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Turbines
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THE AMERICAN SHIP BUILDING COMPANY
Foot of West 54th Street
Cleveland, Ohio.
DEPARTMENT M.

BOILERS
OFFERED FROM STOCK

WATER TUBE

1 600 HP. Stirling, new tubes, 160 lbs. pressure.
1 600 HP. Babcock & Wilcox (NEW) 200 lbs. pressure.
1 450 HP. Heine, 180 lbs. pressure.
4 362 HP. Stirling, 200 lbs. pressure.
1 360 HP. Erie City, 150 lbs. pressure.
6 350 HP. Babcock & Wilcox, 185 lbs. pressure.
6 350 HP. Stirling, 185 lbs. pressure.
3 276 HP. Stirling, new tubes, 150 lbs. pressure.
8 250 HP. Stirling, new tubes, 160 lbs. pressure.

HORIZONTAL RETURN TUBULAR

3 78" x 20', up to 150 lbs. pressure.
6 72" x 18', up to 150 lbs. pressure.
5 72" x 16', up to 135 lbs. pressure.
6 66" x 16', up to 135 lbs. pressure.

You take no chance with
MacGovern & Co.'s Boilers

MACGOVERN & COMPANY, INC.
114 Liberty Street New York, N. Y.

RETURN TUBULAR BOILERS
1—78" x 20' 125-lbs. working Pressure,
5—72" x 18' 125-to 150-lbs. working Pressure.
LOCOMOTIVE TYPE BOILERS
1—150 H.P. Economic,
6—80 H.P. New Water Front open Bottom,
HOISTING ENGINES
2—9 ½" x 12" Lambert D.C.D.D. with A.S.M.E. Boiler,
1—8½" x 10" " " " " " "
3—7" x 10" D.C.D.D. with Boilers,
2—9" x 10" Lambert D.C. 3-Drum Skeleton,
3—9" x 10" Mead-Morrison 3-Drum Skeleton,
1—8½" x 12" Contractors Plant 3-Drum Skeleton,
2—30 H.P. Lidgerwood D.D. Gasoline,
2—8¼" x 10" D.C.D.D. Skeleton,
7—7" x 10" " " "
Many smaller sizes,
Pumps, Steam-Triplex-Centrifugal, almost every size and for every duty.

LOUIS A. TARR, INC.
203 W. Conway St., Baltimore, Md.

WATER TUBE BOILERS

Two (2) 338 HP. Heine Water Tube Boilers, pressure allowed last inspection 200 lbs., single drum type, hand fired, complete with Bayer Soot Blowers, full front, full set of castings, and steam trimmings. Immediate shipment. An unusual opportunity to secure a pair of high grade boilers at an exceptionally low figure.

FRANK TOOMEY, INC.
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CASTLE & WILSON, 1601 Arrott Building, PITTSBURGH, PA.

MOTORS
1—100 H. P. Crocker-Wheeler, 2200 volts, 60-cycle, 3-phase, slip-ring, 690 R. P. M.
GENERATORS
1—150 K. W. D. C. Crocker-Wheeler, 250 volts, 200 R. P. M., engine type.
1—200 K. W. D. C. General Electric 200 R. P. M., 3-wire, 125 to 250 volts, with engine.
1—200 K. W. Bullock, 220-250 volts, direct current, 450 R. P. M., 3-bearing.
ENGINES
13 and 22½x30" Buckeye 16½x30" Buckeye
12x16" Buckeye. 12 and 21x27" Buckeye 18¾x24" Buckeye
WATER TUBE BOILERS
4—264 H. P. B. & W., 160 lbs., Ohio.
3—250 H. P. Franklin, 125 lbs. pressure
1—400 H. P. B. & W., 150 lbs., Iowa.
AIR COMPRESSORS
1—18x18" Duplex, belt driven. 2—23 and 13x20" Sullivan, belt-driven.
Other steam and belt driven compressors on demand.
CONDENSER
1—12 and 20x21 Blake Single-cylinder Jet Condenser, brass fitted.

RETURN TUBULAR
LOCOMOTIVE

BOILERS

WATER TUBE
SCOTCH MARINE

A LARGE STOCK OF HIGH-GRADE BOILERS OF PRACTICALLY ALL SIZES, TYPES AND MAKES, TAKEN OVER FROM DU PONT CHEMICAL COMPANY'S AND OTHER PLANTS WITH PRODUCTION RECORDS—RECONDITIONED, OFFERED SUBJECT TO ANY INSPECTION, AVAILABLE NOW!

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Ice-Making Machinery
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Pumps, Compressors

More than $3,000,000 worth of high-class, rebuilt equipment; all principal makes, in all sizes.

We can supply any requirements

CALHOUN MACHINERY EXCHANGE
5 & 6 City Hall Bldg., EL RENO, OKLA.

EQUIPMENT FOR SALE

2—150 H. P. R. T. Boilers, 100 lbs. pressure.
1—125 H. P. Side-crank Engine.
2—Hand-power Traveling Cranes, 24 and 29-ft. span, 5-ton capacity.
1—40" or 42" Gauge Locomotive (Baldwin), 10 ton.
1—25 H. P. D. C. D. D. "Byers" Hoisting Engine, with or without boiler.
1—16 H. P. "Pen Argyle" D. D. D. C. Hoisting Engine, no boiler.

SOUTH SIDE FOUNDRY & MACHINE WORKS
Charleston, W. Va.

TURBINES

3—75 K. W. 250-volt D. C. General Electric Generator, direct connected to Curtis turbine, 150 lbs. working pressure, complete with oiling system and switchboard.

PLANERS

1—Patch straight side, 6' x 18" x 12' bed.
1—Patch straight or circular, 7' to 75' radius.

BOILERS

1— 75 H. P. Economic Type Boiler, 100 lbs. pressure.
4—150 H. P. R. T., 125 lbs. pressure.
1—100 H. P. Economic Boiler, 100 lbs. pressure.

CRUSHER

1—Sturtevant Roll Jaw, size 6" x 15".

ROLLS

1—Sturtevant Balanced Roll, size 20" x 14".

LATHES

10—19x8 Le Blond, double back geared, quick change, belt driven.

HOISTING ENGINES

1—20 H. P. Mead-Morrison Bridge Hoist.
1—40 H. P. S. D., 220-volt, D. C. Lidgerwood Builders' Hoist.
1—8¼x10 S. S. S. D. Lidgerwood, with boiler.
2—7¼x10 D. C. D. D. National, with boiler.
2—7¼x10 D. C. D. D. Mundy, with boiler.

AIR COMPRESSORS

1—850-ft. Air, Bury, steam.
1—1000-ft. Air, Sullivan.
1—60-ft. Air, Nagle, new, belted.
1—175-ft. Air, Ingersoll, steam.
1—190-ft. Air, American, steam.

PUMPS

1—1000-gal. Knowles Single.
1—750-gal. Worthington Duplex.
1—500-gal. Advance Duplex.
40—Scranton, size 6x5¾x6, new.

DRYER

1—Louisville Steam Dryer, size 6' x 25'.

MALLORY MACHINERY CORPORATION
BALTIMORE — MARYLAND

Electric Motors and Generators

New and Rebuilt
From ½ to 75 H. P.

The Buckeye Equipment Co.
26 W. 3rd St., Cincinnati, Ohio

NEW MOTORS—Immediate Shipment

Quan.	H.P.	V.	R.P.M.	Type	Make
3	25	220	850	K	R. & M.
1	40	220	1200	B	Fairbanks-Morse.
1	40	220	1200	H	Fairbanks-Morse.
1	40	440	900	H	Fairbanks-Morse.
1	50	440	900	H	Fairbanks-Morse.
1	50	220	1200	H	Fairbanks-Morse.
1	50	440	850	AN	Allis-Chalmers.
1	75	440	900	B	Fairbanks-Morse.
1	75	220	865	AN	Allis-Chalmers.
1	150	2200	600	Q	Crocker-Wheeler.

GEO. F. MOTTER'S SONS
Steam and Electrical Engineers
YORK, PA.

Guaranteed EQUIPMENT on sale now!!

From our permanent southern sales headquarters
Slidell, La.

HOISTS, DERRICKS, AND CRANES

4—7½" x 10" Dake Dbl. Cyl. Sgl. Drum Geared Steam Hoists
1—6¾" x 8" Clyde Dbl. Cyl. Dbl. Drum Steam Hoist.
1—5½" x 8" American Dbl. Cyl. Dbl. Drum Steam Hoist.
1—7" x 10" American Dbl. Cyl. Dbl. Drum Steam Hoist with swinger and boiler.
1—9" x 10" American Dbl. Cyl. Three Drum Steam Hoist with swinger and boiler.
1—Jib Derrick 53' Mast 53' Boom with Bull Wheel.
1—10 Ton Stiff Leg Derrick 70' Boom, 40' Mast with Bull Wheel.
1—3 Ton American 4 Wheel Locomotive Crane. Standard Gauge.
1—2 Ton Byers Auto Crane Standard Gauge.

AIR COMPRESSORS

1—1900 Ft. Ingersoll, Straight Line Steam Driven.
1—1200 Ft. Ingersoll, Straight Line Steam Driven.
1—309 Ft. Chicago Pneumatic Tool Co., Oil Engine Driven.

BOILERS

1—284 H.P. B&W Water Tube 150 lbs. pressure.
1—250 H.P. Erie City Water Tube 150 lbs. pressure.
1—100 H.P. Locomotive Fire Box 90 lbs. pressure.
1— 40 H.P. Internal Fired 90 lbs. pressure.
2—72"x18' Horizontal Tubular 115 lbs. pressure.
1—66"x18' Horizontal Tubular 115 lbs. pressure.

CONDENSERS AND HEATERS

2—2000 ft. Wheeler Condensers Complete with 12" Centrifugal Circulating Pumps (new)
1—1400 ft. Worthington Condenser, complete with 12" x 14" x 14" x 12" Steam Driven Vacuum & Air Circulating Pump.
2—Row & Davis Evaporators, capacity 15 ton (new)
2—Row & Davis Feed Water Heaters 500 H.P. (new)

PUMPS

1—750 Gal. C. H. Wheeler Underwriters Steam Fire Pump Size 16" x 9" x 12"
1—500 Gal. Blake Underwriters Steam Fire Pump, size 14" x 7¼" x 12"
4—10" x 6" x 12" Simplex Boiler Feed Steam Pumps (new)
3—10" x 6" x 12" Duplex Steam Pumps (new)
1—6" x 5¾" x 6" Duplex Steam Pumps (new)
3—4½" x 2¾" x 4" Duplex Steam Pumps (new)
1—1" x 6" Worthington Triplex Hydraulic Pump. Belt Driven (new)

SMOKE STACKS

1—110 Ft. 70" Diam., Nos. 7 & 9 Gauge Guyed
1—80 Ft. 72" Diam. No. 9 Gauge Guyed
1—120 Ft. 66" Diam., Nos. 7 & 9 Gauge Guyed
2—80 Ft. 66" Diam., Nos. 7 & 9 Gauge Guyed
4—40 Ft. 66" Diam., Nos. 7 & 9 Gauge Guyed
1—70 Ft. 3.." Diam., No. 10 Gauge Guyed
2—60 Ft. 30" Diam., No. 7 Gauge Guyed

STEEL PLATES, ANGLES AND CHANNELS, ETC.

1000 Ton—Steel Plates ¼", 5/16", ⅜", 7/16", ½" and ⅝". All Sizes
400 Ton—6" & 7" steel Channels.
200 Ton—3½" x 3½" x ⅜" & ½" Angles.
100 Ton—3½" x 5" 7/16" & ½" Angles.
10 Ton—5" x 5" x 7/16"
10 Ton—6" x 8" x ¾"
4—18" I Beams—30' Long.
2—10" I Beams—20' Long.
20—6" Diam., Round Bars—13' 6" Long.
10—4" Diam., Round Bars—14' to 24' Long.
20—3" Diam., Round Bars—10' to 20' Long.
80,000 lbs. 1¼" Diam., Galv. Round Bars
30,000 lbs. 1⅛" Diam., Galv. Round Bars.
15,000 lbs. 1" Diam., Galv. Round Bars.
50,000 lbs. ¾" Diam., Galv. Round Bars.
100,000 lbs. ⅛", ⅝", ¾", ⅞" & 1" Rivets.

We have a large stock of Manilla and Wire Rope, Chain, Rope Blocks, Wrenches, Iron and Woodworking Tools, Pipe, Valves, Fittings, Plumbing Supplies, Paints and Varnish, Lumber, Etc.

Write for list of Ship Building Material No. SL 2

Address all inquiries on this ad to

HARRIS BROTHERS CO.
SLIDELL, LA.

Never Again Such Low Electric Motor Prices

OCTOBER CLEARANCE SALE

3 phase 60 cycles 220-440 volts Motors

HP		Make	Type	Speed	Price
5	Used	GE	KT	1800	$ 68.00
10	New	Allis-Chal.	AN	1200	250.00
15	New	Allis-Chal.	AN	1200	275.00
20	Used	FM	KBV	1200	190.00
20	Used	Century	AS	900	265.00

Direct Current 220 volts Motors

6	Used	Westg	Sht	875	140.00
7½	Used	Browning	Sht	930	140.00
7½	Used	Richmond	Sht	1500	135.00
7½	Used	GE	Sht	450-1200	275.00
	Above motor has Idler for short belt drive.				
10	Used	Westg	Sht-M	860	190.00
10	Used	Westg	Sht-SK	1750	180.00
13	Used	Westg	Cpd-S	1200	200.00
25	Used	GE	CE-Sht	725	340.00
40	Used	Westg	SK	1700	350.00

Direct Current 110 volts Motors

¾	Used	GE	Sht-CA	1800	30.00
5	Used	Sprague	Lundell	1550	70.00
10	Used	R&M	Cpd-MP	850	210.00
15	Used	Westg	Cpd-SK	1100	200.00
25	Used	Westg	SK-Cpd	600	325.00
40	Used	Westg	SK-Sht	950	375.00

Space prevents us listing hundreds of other bargains in Motors, Generators, Alternators, Motor-Generator Sets, Frequency Changers, Transformers and Line Materials; Air Compressors, Hoists, Etc.

STANDARD ELECTRIC MACHY. CO.
7 & 9 E. Hill St., BALTIMORE, MD.

CASH
FOR THAT ENGINE!

It is no good to you. Why not advertise it in this department and turn it into cash.

Mining Machines for Sale

We have for sale three Sullivan Short Wall Mining Machines, type CE-7, alternating current, 60 cycle, 220 volt, 42 inch gauge, practically new. Will sell for $2300. each.

Diamond Coal Company
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TANK & TOWER
35,000 GAL. FLATBOTTOM STEEL TANK WITH 60 FOOT STEEL TOWER WILL SELL CHEAP.

HERFURTH ENGINE and MACHINERY CO.
ALEXANDRIA, VA. CAMDEN, S. C.

CORRUGATING ROLLS

Robinson Corrugating Rolls. Octagon Rolls 26" diam., 12' long, arranged for placing circular pitch plates. Present plate pitch 2½". Motor Driven by 10 HP Westinghouse Induction Motor, 220 Volt, 3 Phase, 60 Cycle, A. C. Capacity 18 Gauge. Good Condition.

RUSSELL MACHINE COMPANY
PITTSBURGH, PA.

CRUSHERS-BOILER-ENGINE

2—Gates No. 6 Style D $1,500 each or $2,800 for both.
1—72x18 H.R.T. Boiler 115 lbs., $850.
1—14x24 Horizontal Engine, $500.
2—Lidgerwood Overhead Hoists, $450.
1—Worthington Pump.
1—Feed water heater closed type.
Sell as a whole $3,600. f. o. b. cars.

Francis E. B. O'Brien
41 So. 15th St. Philadelphia, Pa.

A NEW BULLETIN
No. 219
JUST OFF THE PRESS
containing over
1600 REAL BARGAINS
in high grade NEW & USED equipment for
MINE—QUARRY
FACTORY—MILL
POWER PLANT
CONTRACTOR

DON'T BUY
until you have looked through this bulletin
WRITE FOR A COPY TODAY

CROCKWELL MINE & MILL SUPPLY CO.
PINE & BROADWAY ST. LOUIS

FOR SALE

1—400 H. P. Rust Water-tube Boiler, complete, with stokers.
2—350 H. P. Vogt Water-tube Boilers, complete, with stokers
3—300 H. P. Heine Water-tube Boilers, hand fired.
1—600 H P Springfield Scotch Type Boiler
1—72"x18' H R T., lap side seam, triple riveted
1—60"x16' H. R. T., butt joint, triple riveted.

CHAS. T. LEHMAN - Birmingham, Ala.

New Corliss Engines.

27—18x36 Heavy Duty, Allis-Chalmers Corliss Engines, both right hand and left hand. 350 H. P. at 125 r. p. m. 11 ft. by 32 inches. Band wheel. Operated on 140-lb. steam pressure, 1⅛ inch gauge back pressure, double eccentric.

THE NASHVILLE INDUSTRIAL CORP.
Old Hickory, Tennessee.

STERLING BOILERS

44—823 H. P. Sterling Boilers, Type M-30, 200 pound pressure. Equipped with Westinghouse 8 retort stokers, Vulcan soot cleaners, flow meters, 100,000 cu. ft. capacity forced draft fan direct connected to turbine.
Practically new at a bargain.

THE NASHVILLE INDUSTRIAL CORPORATION
Old Hickory, Tennessee.

We are in the Market for one second-hand boiler

72" x 16'. Must be butt strap boiler, triple riveted and stand inspection for 125 lb. steam pressure. Quote price together with location and full particulars to Arctic Ice & Coal Co., Greensboro, N. C.

POWER PLANTS
STEAM AND ELECTRIC

DESIGNED
FURNISHED
INSTALLED

Modern used units of thorough inspected mechanical condition.

CAPABLE ENGINEERS
Over forty years experience

KESTER MACHINERY COMPANY
Established 1880
WINSTON-SALEM, N. CAR.

FOR SALE
OVERHAULED LIKE NEW

H. P.		3 Phase, 60 Cycles	Speed
3	10	Gen. Elec., Type KT	1200
9	10	Allis-Chalmers	1150
1	10	Westghse., type HF, slip-ring	1120
5	15	Burke	600
6	20	General Electric	1800
2	20	General Electric	1200
1	20	Westinghouse	850
2	20	General Electric	900
1	25	General Electric	1200
1	25	General Electric	900
3	30	General Electric	180
1	30	Western Electric, slip-ring	720
1	30	Westinghouse, type MS	560
6	40	Gen. Elec., type KT	1200
2	50	Gen. Elec., type KT	1200
2	50	Gen. Elec., type KT	900
1	50	Allis-Chalmers	865
2	60	Western Elec. (G. E.)	1200
2	60	Western Elec. (G. E.)	900
1	75	General Electric	1800
1	75	Gen. Elec., slip-ring	900
2	100	Gen. Elec., type 1	1800
6	150	Gen. Elec., slip-ring	600
2	250	Gen. Elec., type1,formK.550-volt	495

Would YOU buy a SECOND-HAND ELECTRIC MOTOR at ANY price? if you KNEW it to be as good as new?

Wire us your inquiries.



GREGORY ELECTRIC CO. CHICAGO, ILLINOIS

Second-hand Electric Motors Bought, Sold and Exchanged.

In business since 1893.

16th and Lincoln Streets Chicago, Ill.

7½ K. W. Watson Engine Generator Sets

for Marine or Industrial Lighting.
Very Special Price for Immediate Action.
$1050.00 each Canadian Funds
In Bond at Toronto Warehouse—
Duty Free.

The A. R. Williams Machinery Co., Ltd.
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Electrical Machinery

Large stock of new and second hand overhauled and guaranteed Electric Motors and Generators at low prices.
Write for our stock list or let us know your requirements and we will quote you promptly.

V. M. Nussbaum & Company
Fort Wayne, Indiana

SPECIALLY PRICED

2—50 H. P. Fairbanks Morse A. C. Squirrel Cage Induction Motors, 2 phase, 60 cycle, 220 volts, 900 R. P. M.

1—35 H. P. Fairbanks Morse A. C. Squirrel Cage Induction Motor, 2 phase, 60 cycle, 220 volts, 900 R. P. M.

2—50 H. P. General Electric D. C. Type D. L. C. Motors 220 volts, 650 R. P. M.

Machine Tools
Boilers, Engines
Air Compressors, Pumps.

DELTA EQUIPMENT CO.

148 N. Third St. Philadelphia, Pa.

BRAND NEW MOTORS
Take Advantage of these Great Motor Bargains

1000—¼ H. P. single ph. 60 cy. 110 V. 1750 RPM. complete with cord, plug and pulley $13.00 each.

½ H. P. Westinghouse single ph. 60 cy. 110/220 V 1750 RPM. repulsion type $40.00.

5 H. P. 3-ph. 60 cy. 220/440 V. 1800 RPM. complete with pulley and base $70.00; 7½ H. P. $95.00; 10 H. P. $120.00; 15 H. P. $140.00.

These motors are known as the PHOENIX motors which we consider the highest grade motor on the market and are equal to such makes as General Electric, Westinghouse or any other motor on the market. It is guaranteed for one year from date of sale. They are packed in their original crates.

Great bargains in other sizes. Let us quote you on your requirements

Terms to all CASH WITH ORDER f. o. b. Chicago, subject to prior sale.

General Motor & Machinery Co.
601 W. Adams St. Chicago, Ill.

JOHN A. STEWART ELECTRIC CO.

S. W. Cor. Water and Vine Streets, Cincinnati, Ohio
1814 Continental Bank Bldg., Chicago, Ill. - 2112 Central Street, Kansas City, Mo.

MOTORS

1—1400 hp. Westinghouse Type C. W. Slip-ring Rolling-mill type Motor, 3-ph., 60-cy., 2300 volts, 505 r.p.m., with magnetic control panel complete. This motor is brand new and in original crate.

1—1250 Kva. Westinghouse Synchronous, 6600 volts, 3-ph., 25-cy., 450 r.p.m., with starting motor.

1—750 hp. New Allis-Chalmers, 3-ph., 60-cy., 2200 volts, slip-ring, 505 r.p.m., with starter.

1—300 hp New Allis-Chalmers, 3-ph., 25-cy., 440 volts, 485 r.p.m., slip-ring induction type, with drum control.

1—250 hp. New G. E., 3-ph., 60-cy., 550 volts, 600 r.p.m., squirrel cage, 40 degrees.

1—200 hp General Electric, 3-ph., 60-cy., 2200 volts, 1760 r.p.m., slip-ring motor, with starter.

1—250 hp Allis-Chalmers, brand new, 3-ph., 60-cy., 2200 volts, 514 r.p.m., slip-ring induction motor, with Westinghouse primary, Cutler-Hammer secondary starter.

1—250 hp Allis-Chalmers, 3-ph., 60-cy., 2200 volts, 870 r.p.m., slip-ring induction motor, with Westinghouse primary and Cutler-Hammer secondary starter.

2—150 hp. Allis-Chalmers, 3-ph., 60-cy., 440 volts, 865 r.p.m., squirrel-cage motors, with starters.

250 hp. Burke, 2 or 3-ph., 60-cy., 2300 volts, 600 r.p.m., synchronous motor, with direct-connected exciter and starting panel.

200 Motors, ranging from 7 1-2 to 75 hp., 3-ph., 60-cy., 550 volts, 40-degree motors, with controllers, at prices which will enable dealers with rebuilding-shop facilities to purchase, rebuild and sell at a profit. Detailed list mailed upon request.

TURBINES

3—500 kw. Gen. Elec. Vertical, 3-ph., 60-cy., 1800 r.p.m., 2300 volts, with 2000 sq. ft. surface condenser, with piping to headers. Beautiful condition. Immediate delivery.

2—400 kw Westinghouse Bronze Bladed, 2 or 3-ph., 60-cy., 3300-2300-550-480 volts, 3600 r.p.m., condensing with 2500 sq. ft. surface condenser.

FREQUENCY CHANGERS

1—200 kw. G. E., 3-ph., 25-cy., 6000 volts, to 3-ph., 60-cy., 2400 volts, 750 r.p.m., four bearing; can be separated, making 2 motors.

1—400 kw. G. E., same as above, 375 r.p.m.

1—500 kw. G. E., same as above. 375 r.p.m.

2—1250 kva. G. E. 3-ph., 25-cy., 6600 volts, 375 r. p. m. motor type ATI to AC generator AQB, 5400/2700 volts, now 2-ph., reconnectable for 3-ph., 2300 volts, 62½-cy., with direct connected exciter. Located near New York.

1—500 Kva. Westinghouse 3-ph., 25-cy., 6600 volts, 375 r.p.m. motor, to 2-ph., 62½-cy., 2700 volts generator, reconnectable for 3-ph., no exciter. Located near New York.

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2—Westinghouse No. 11 Le Blanc Low-level Jet Condensers, complete with motor-driven pumps, strainers and piping. Used one year and now in perfect condition. Good as new. Immediate delivery Cincinnati.

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1—240 kw. Ft. Wayne, 3-ph., 60-cy., 2300 volts, 150 r.p.m., revolving field with belted exciter, direct connected to 13x27x24 Russel tandem compound 4-valve heavy-duty engine. Excellent condition. Immediate shipment Cincinnati.

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Installed Brand New—Never Operated

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1—1200 kw. Westinghouse 550 volt DC, 400 r.p.m. generator with 1700 hp. Westinghouse now 2-ph., 60-cy., 2200 volt, 400 r.p.m. synchronous motor (reconnectable 3-ph.). Located in Tennessee.

3—150 kw. Westinghouse 250 volt DC, 500 r.p.m. generator with 225 hp. Westinghouse 3-ph., 25-cy., 6600 volt, 500 r.p.m. synchronous motors. Located near New York.

1—100 kw. Westinghouse 125/250 volt DC, 1100 r.p.m. generator with 150 hp. Westinghouse 550 volt DC motor, 1100 r.p.m. with panels. Located Cincinnati.

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2—480 hp. Sterling Water Tube, code built, 160-lb. working pressure, hand-fired grates, complete with all fittings.

6—500 hp. Aultman & Taylor, B. & W. Boilers, with Green chain-grate stokers, 200-lb. pressure.

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2—225 B. H. P., vert., 3 cyl., bltd. or cpld.
1—225 B. H. P., vert., 3 cyl., coupled to 200 K. V. A. 3-ph. 60-cyc. 2300-v. generator.
1—170 B. H. P., vert., 3 cyl., belted.
1—120 B. H. P., vert., 3 cyl., coupled to 85 K. W. 3-phase. 60 cyc. 2300-v. generator.
1—120 B. H. P., vert., 3 cyl., coupled or belted.

Semi-Diesel Oil Engines

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1—150 B. H. P., vert., 3 cyl., coupled to 100 K. W. 250-v. D. C. generator.
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120"	dia. x	16'	7 ½ " long,	10,000 gallons.
120"	dia. x	10'	2 ½ " long,	6,000 gallons.
120"	dia. x	13'	6 ½ " long,	8,000 gallons.
120"	dia. x	15'	2 ½ " long,	9,000 gallons.
120"	dia. x	20'	2 ½ " long,	12,000 gallons.
120"	dia. x	25'	2 ½ " long,	15,000 gallons.
120"	dia. x	26' 10	" long,	16,000 gallons.
120"	dia. x	30'	2 ½ " long,	18,000 gallons.
120"	dia. x	33'	5 ¾ " long,	20,000 gallons.
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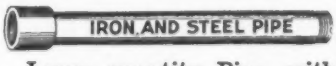
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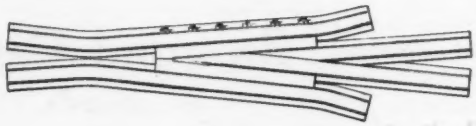
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24", 36" and Standard Gauge; Rod and Geared; 5 to 100 tons in weight. FOR ALL CLASSES OF SERVICE

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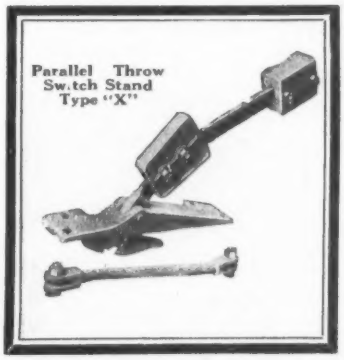
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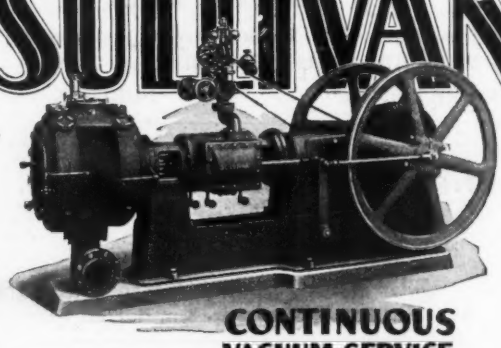
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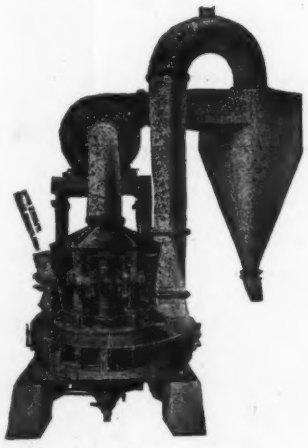
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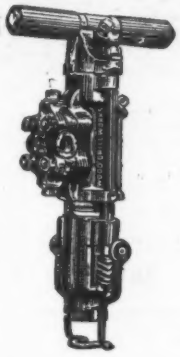
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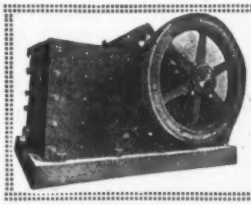
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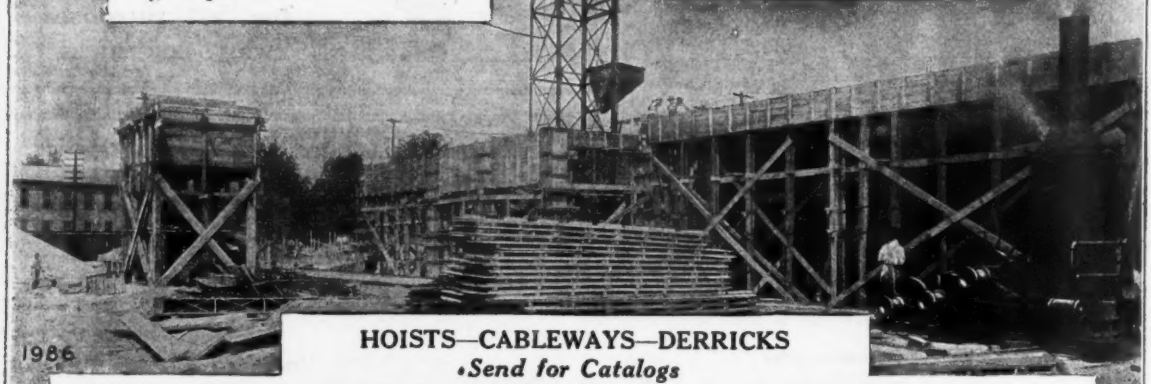
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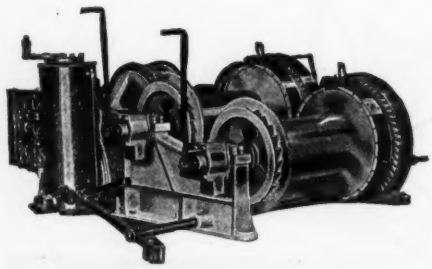
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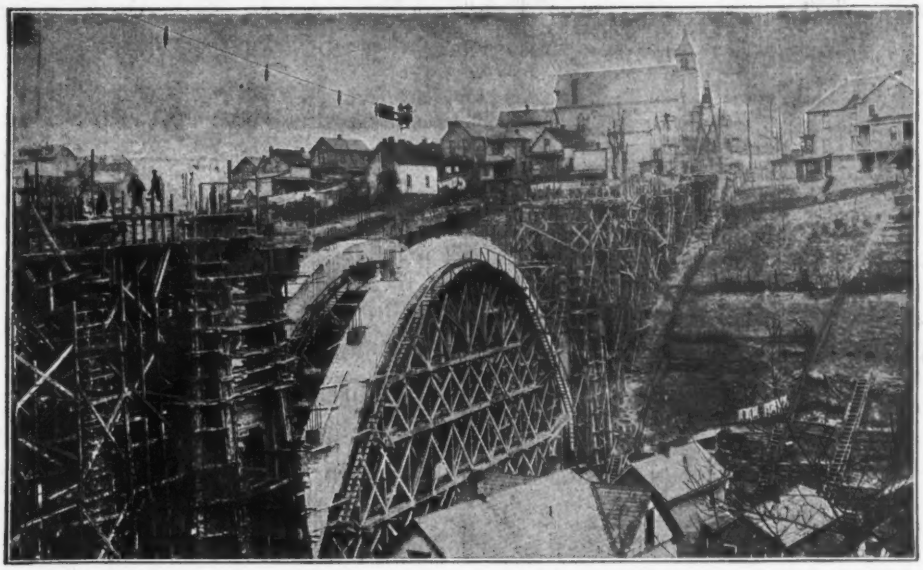
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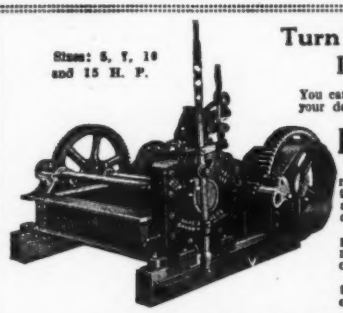
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A portable machine, daily capacity 5 to 7 tons.



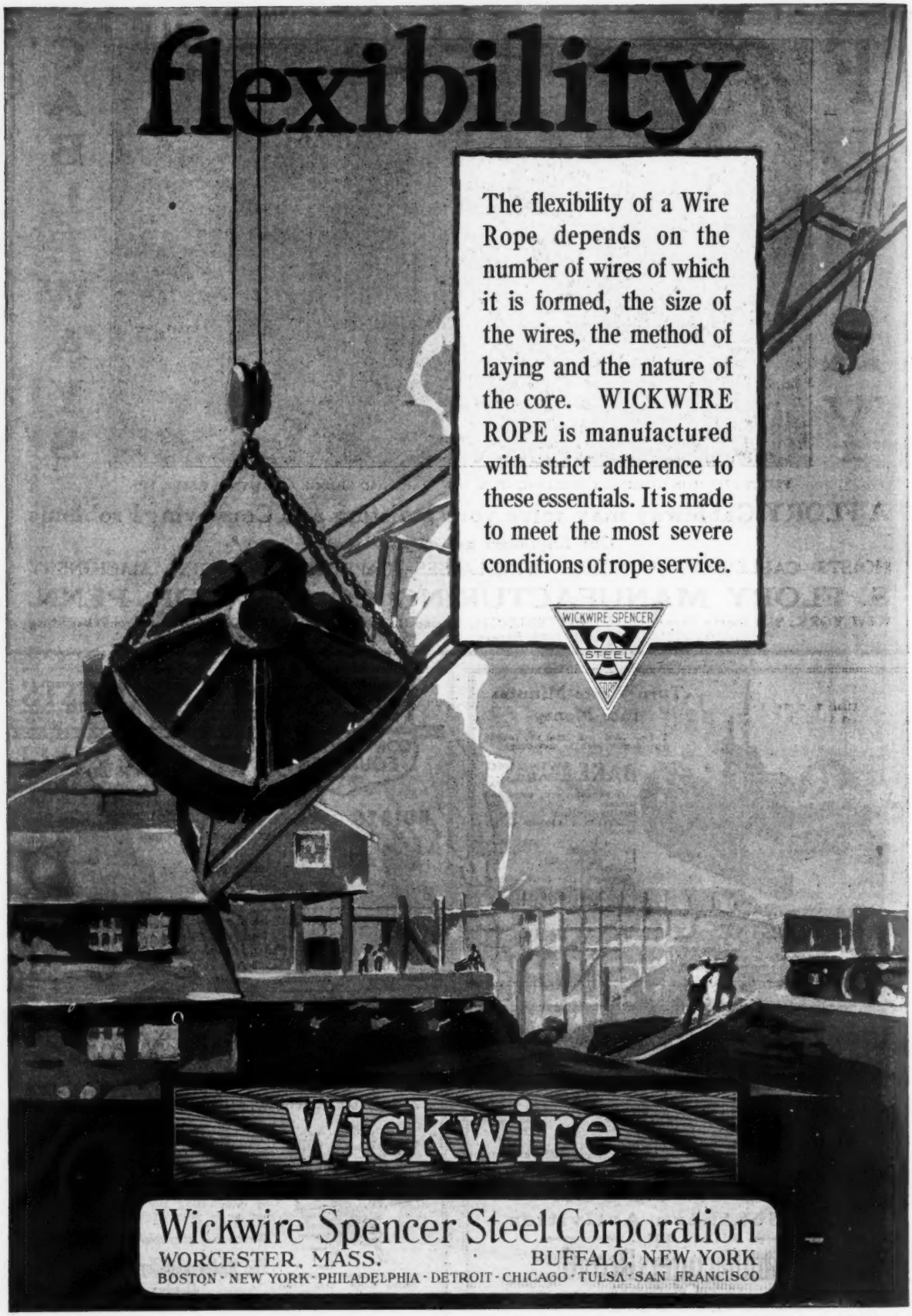
For Contractors, Railroads, Trolley Lines, Coal Companies, Industrial Plants, Foundries.

This dryer has a low first cost, is easily and cheaply operated and guaranteed dry sand.

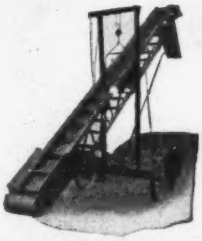
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flexibility
The flexibility of a Wire Rope depends on the number of wires of which it is formed, the size of the wires, the method of laying and the nature of the core. WICKWIRE ROPE is manufactured with strict adherence to these essentials. It is made to meet the most severe conditions of rope service.
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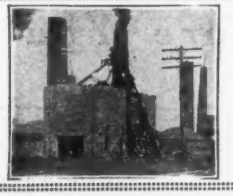
"We have used it on COAL, ASHES, GRAVEL, SAND AND RUBBISH. It will handle any of these to perfection. Under certain conditions it saves the labor of six to ten men."

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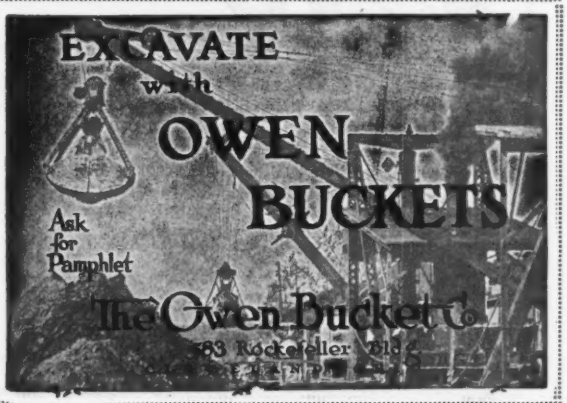
Dirt-Movers Use the Dragline Cableway Method of Digging and Moving Materials



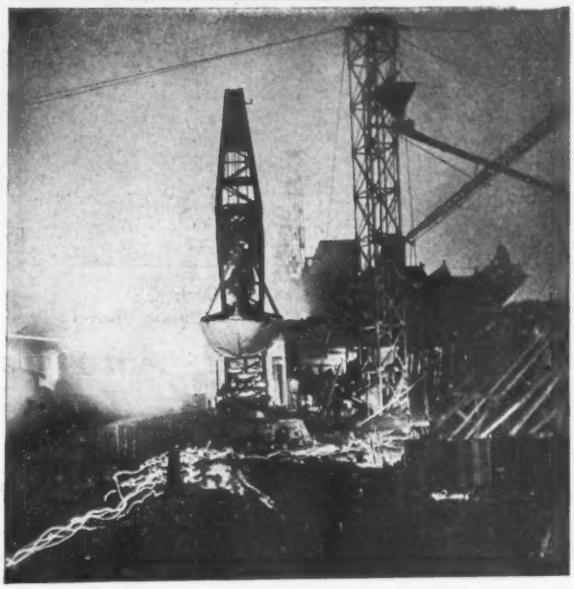
The ability of the Sauerman Dragline Cableway Excavator to dig from either above or below water, and to elevate and convey the material from pit to plant without the help of auxiliary machinery, has made it standard equipment for commercial gravel-handling operations. This same ability makes our type of equipment correspondingly economical and efficient for other propositions where material has to be excavated and moved over distances from 100 to 800 feet or more.

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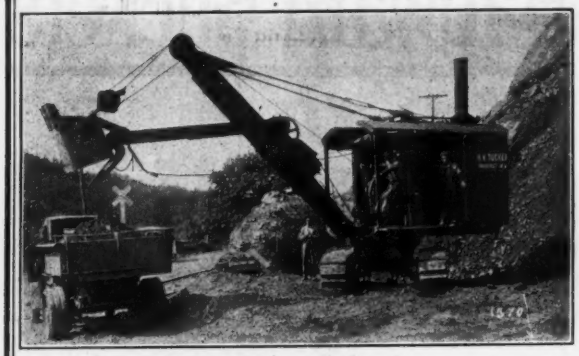
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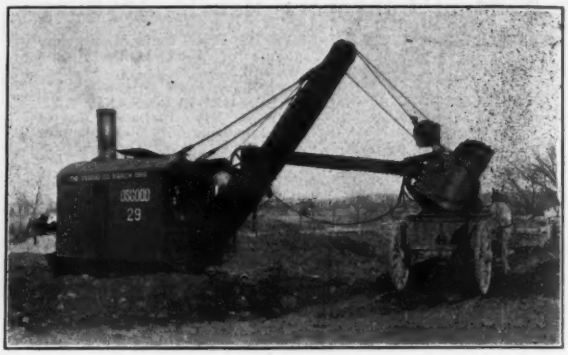
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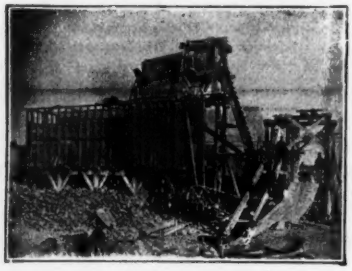
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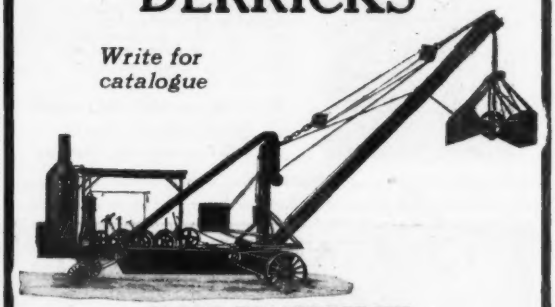
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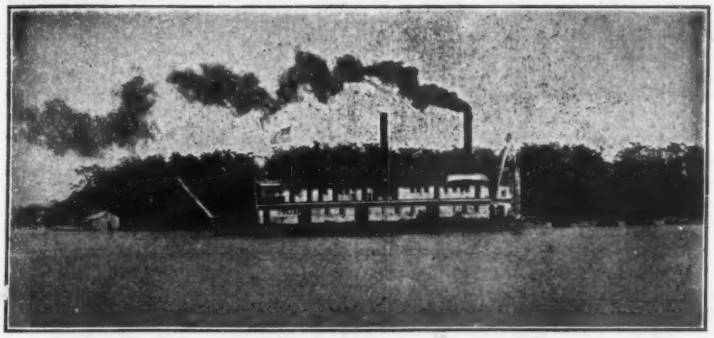
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Agents in Leading Cities

We are Designers and Builders of

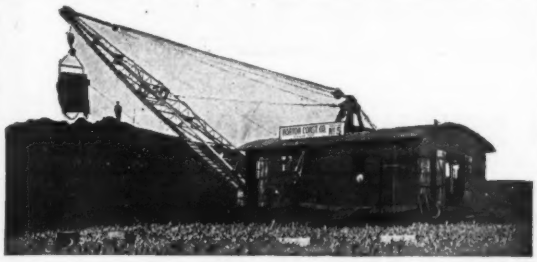
HYDRAULIC DREDGES and MARINE ENGINES

Correspondence Solicited

ELLICOTT MACHINE CORPORATION
BALTIMORE, MD.

"INSWELL" CHAIN

The Columbus-McKinnon Chain Co.
COLUMBUS, OHIO
Manufacturers of All Kinds of
WELDED CHAIN



2—3 yard Walking Draglines on Levee Work in Texas

The Walking Traction

A feature exclusive to Monighan Excavators which the contractor must see in action but once to appreciate.

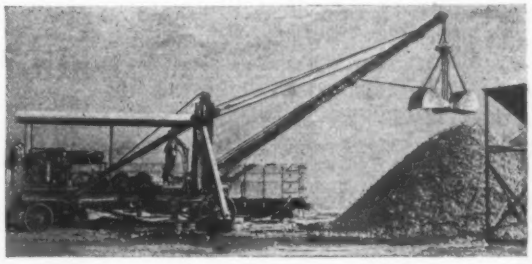
Over any ground—soft, muddy or rough, it "walks" the excavator without planks, skids, track or trackmen.

Labor cost is cut, more material handled and the whole job speeded up.

Catalog No. 17 explains these advantages in detail. With it we will send you the name of the user nearest you if you wish it.

MONIGHAN MACHINE CO.
2024 CARROLL AVE.
Chicago, Ill.

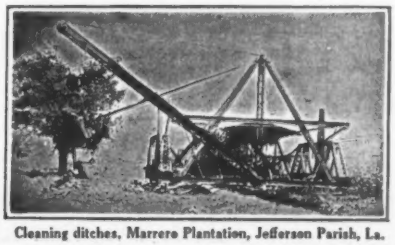
Bay City Convertible Cranes



Gasoline or Electric Power.
Choice of mounting—Road wheels or Crawler Trucks
Attachments—$\frac{3}{4}$-yd. clam, $\frac{1}{2}$-yd. dipper, hook, scraper, etc.
A sturdy, reliable machine at the right price
Let our specifications convince you

Walking Land Dredges

A two-man dredge. Oil engine operated. Built any width.
Low cost installation, moving, fuel and repairs
Also furnished in Track, Floating, or Crawler Type



Cleaning ditches, Marrero Plantation, Jefferson Parish, La.

Catalog and detailed information on request

Bay City Dredge Works
2600 Center Ave.
BAY CITY
MICHIGAN

BUCYRUS



5000 YARDS IN 64 HOURS

loading trucks on an eleven foot bank, is what this Los Angeles contractor did on a basement excavation job with his

BUCYRUS REVOLVING SHOVEL

equipped with a ⅔ yard dipper and 16-foot dipper sticks. He dug in on Monday and finished the job the following Saturday, with an actual working time of 64 hours—four days single shift and two days double shift, of eight hours each. This means 625 cubic yards per 8 hour shift, or slightly better than 78 cubic yards per hour.

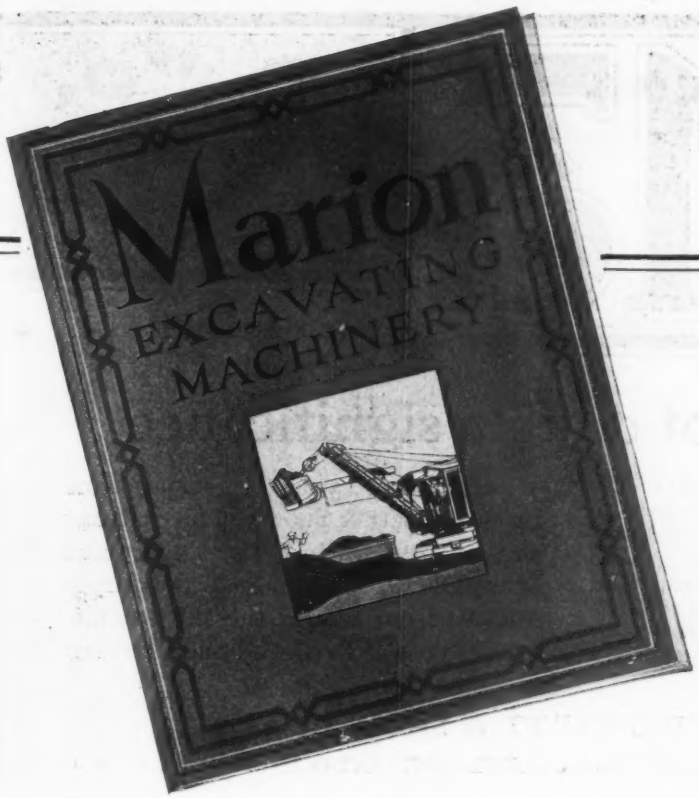
Speed and efficiency like this are characteristic of Bucyrus Revolving Shovels. There is a Bucyrus that is built for your work, and will do it as well as this job was done. Bulletin C-M gives full information. Send for your copy.

BUCYRUS COMPANY SOUTH MILWAUKEE, WISCONSIN

New York Minneapolis Birmingham San Francisco Portland, Oregon
Pittsburgh, Pa. Chicago Denver Salt Lake City Richmond, Va.

374

SOUTH MILWAUKEE, WISCONSIN, U.S.A.



If you have earth to move

Send for this Booklet

It will tell you how the excavating job you are contemplating can be done faster, better, and for less money. The complete line of Marion Machinery offers a solution to any excavating problem that may arise in your work.

Revolving and railroad type shovels with their various combinations are taken up in the Marion Booklet and their qualities set forth in such a manner that you can readily determine the size and type best suited to your work.

The Marion Steam Shovel Co.

Marion, Ohio.

The Coupon Brings the Descriptive Booklet.

The Marion Steam Shovel Co.
Marion, Ohio

Mail me a copy of the MARION BOOKLET. This without cost or obligation to myself.

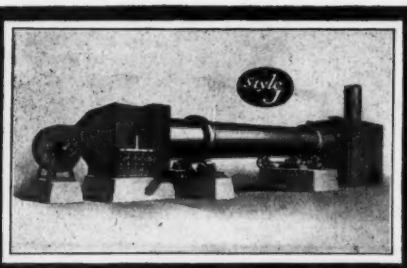
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Position.....

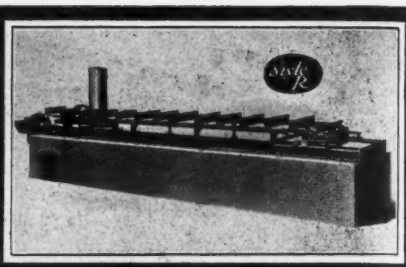
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13



One of Thirteen Different Types

One of Thirteen Different Types

A number of double significance

First, because it represents the number of different types of dryers which form the basis of the suggestions of Bartlett & Snow Engineers.

Second, because thirteen times two (26) represents the number of years of experience that is back of these suggestions. It was in 1895 (26 years ago) that Bartlett & Snow tackled their first drying problem and built their first dryer.

When you put your drying problems up to Bartlett & Snow you take advantage of these thirteen times two years of experience and you have your dryer selected from among the thirteen different types of Bartlett & Snow Dryers.

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DRYERS · CALCINERS · COOLERS

L. R. CHRISTIE COMPANY - Pittsburgh, Pa.

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Indirect Heat **ROTARY DRYERS**

Especially suitable for drying all kinds of GRANULAR MATERIAL

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Automatic Improved **DRYERS** For All Materials

Economical Efficient Great Capacity

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RICHMOND, VA.

VIRGINIA'S LARGEST AND RICHMOND'S MOST CENTRALLY LOCATED HOTEL.

EVERY CAR LINE in the City PASSES MURPHY'S.

ROOMS SINGLE AND EN SUITE.

Railroad tickets sold and baggage checked at Hotel.

Main Hotel and Grace Street Annex fireproof.

JAMES T. DISNEY, - - - - - - Manager.

NO headaches!

EVERY user of explosives knows that the handling of Explosives and the breathing of fumes are followed by a "Powder Headache" — a headache that MUST be endured whenever certain kinds of dynamite explosives are used.

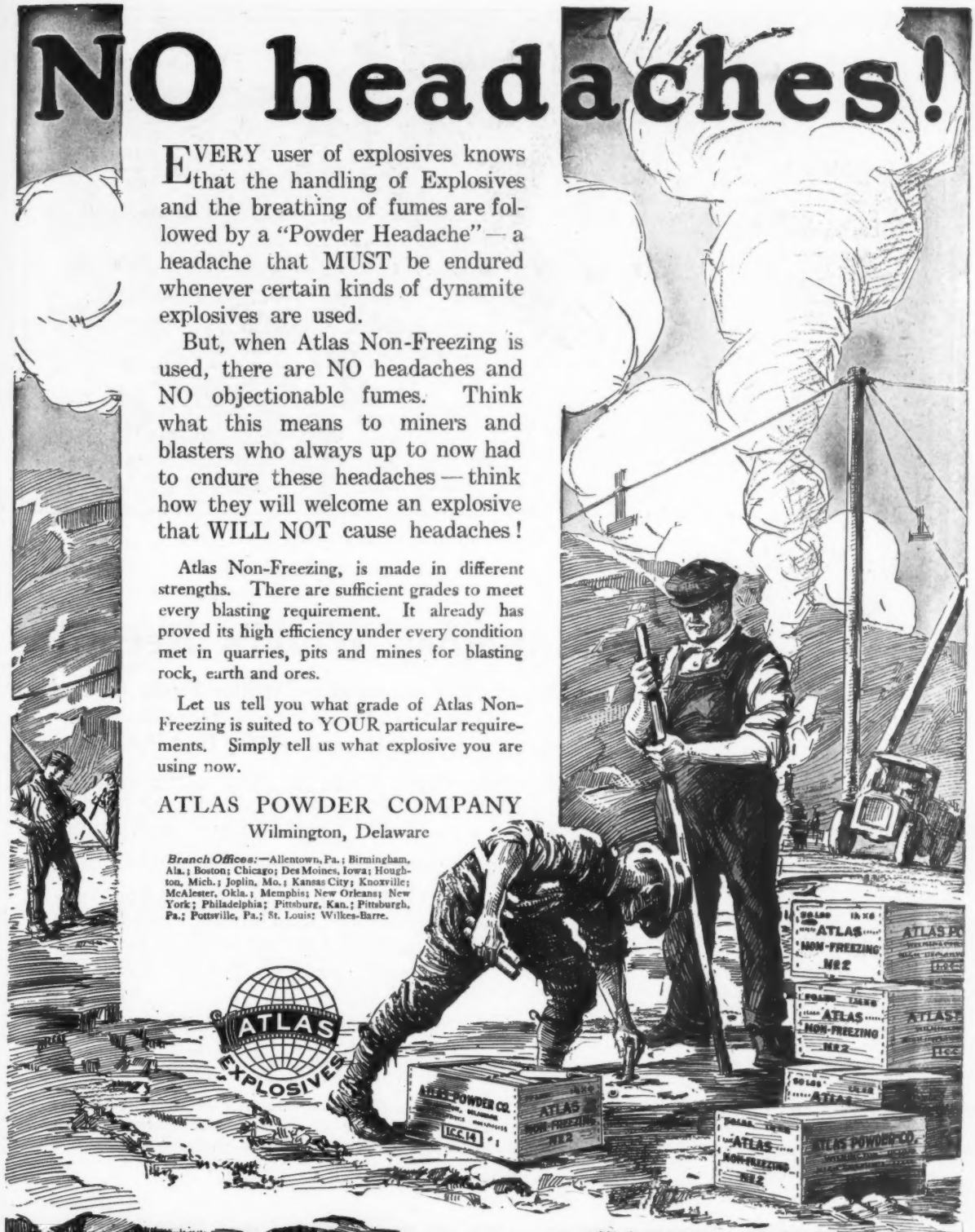
But, when Atlas Non-Freezing is used, there are NO headaches and NO objectionable fumes. Think what this means to miners and blasters who always up to now had to endure these headaches — think how they will welcome an explosive that WILL NOT cause headaches!

Atlas Non-Freezing, is made in different strengths. There are sufficient grades to meet every blasting requirement. It already has proved its high efficiency under every condition met in quarries, pits and mines for blasting rock, earth and ores.

Let us tell you what grade of Atlas Non-Freezing is suited to YOUR particular requirements. Simply tell us what explosive you are using now.

ATLAS POWDER COMPANY
Wilmington, Delaware

Branch Offices:—Allentown, Pa.; Birmingham, Ala.; Boston; Chicago; Des Moines, Iowa; Houghton, Mich.; Joplin, Mo.; Kansas City; Knoxville; McAlester, Okla.; Memphis; New Orleans; New York; Philadelphia; Pittsburg, Kan.; Pittsburgh, Pa.; Pottsville, Pa.; St. Louis; Wilkes-Barre.



ATLAS NON-FREEZING



The Men Who Made the World's Shaft Record

J. D. Matheson, General Foreman (fourth from right in front row, kneeling), attributes the success of this undertaking largely to the efficiency of these men.

WALTER FITCH, JR.
President Walter Fitch, Jr. Co.

Another World's Record

The Same Contractor - Walter Fitch, Jr. Co.
The Same Powder - - Hercules
The New Shaft Record 427½ Feet in 31 Days

In 1916, Walter Fitch, Jr., Co. sank a shaft 261 feet in 31 days for the Chief Consolidated Mining Co., Eureka, Utah, a world's record at that time.

Hercules Dynamite was used.

On August 15, 1921, the same contracting company, sinking another shaft for the same mining company, completed a record of 427½ feet in 31 days. This exceeds, by 117½ feet, the best previous distance ever made.

Again, all of the dynamite used was Hercules.

What greater confidence in the reliability of Hercules Dynamite could be shown? What better demonstration of its performance?

The Fitch Company's continued choice of Hercules for this undertaking, which demanded the utmost efficiency from men and materials, is a significant fact worth remembering.

Write for our book—Hercules Products.

Condensed Data

Size of Shaft—5'9"x15'6" (outside dimensions)
Distance Sunk—427½ feet in 31 days.
Explosives Used—Hercules Gelatin L. F. 35%—1"x8"
Blasting Caps Used—Hercules No. 8
Average Dynamite Consumption per foot—15¼ lbs.
Average Footage per day—13.8 feet
Labor—Average of 5.7 shaftsmen per shift.
Drilling—Average of 23.9 holes drilled per round. Three rounds drilled per 24 hours.
Hoisting—Average of 72½ buckets of 17 cu. ft. capacity hoisted per shift.
Timbering—Average of 2.8 sets per day by an average of 4.8 timbermen.
Nature of rock—Porphyry and close grained limestone.
Total Delay During Month—13 hours due to failure of power and repairing head frame.

HERCULES POWDER CO.

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Buffalo, N.Y.
Chattanooga, Tenn.
Chicago, Ill.
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Would you buy an egg because it was cheap?

Common Sense Sez: "NO!"

Quality in an egg is everything—just as it is in road-building materials. Engineers who build highways of untried bituminous materials speculate with public funds. They sacrifice *assured* durability, economy and service value for mere "cheapness."

Road engineers who specify Bermudez Road Asphalt, however, play safe. They know its record—its guarantee of quality.



BERMUDEZ
Road Asphalt
"IT STAYS PUT"

is a native-lake asphalt—a nature-made bitumen—seasoned and toughened by countless centuries of tropic heat and storm. No other bituminous material equals it in ductility, flexibility and resistance to wear, moisture, heat and frost. Thousands of splendid highways throughout the world—roads famous for their volume of traffic—have proved the durability, economy and all-around superiority of Bermudez. Before building that new road or resurfacing that old one, write for a copy of

"New Pavements at Half the Cost"

New York
Chicago
Pittsburgh

THE BARBER ASPHALT PAVING COMPANY
PHILADELPHIA

St. Louis
Kansas City
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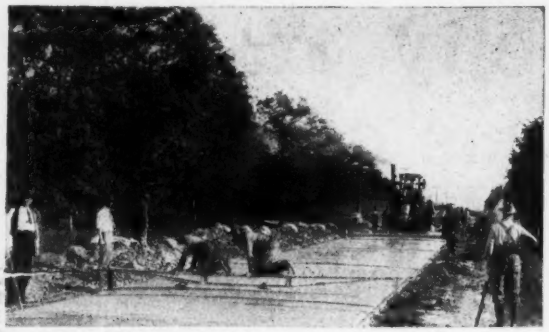
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GENASCO LINE—*Write for descriptive matter*

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Genasco Asphalt Putty
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Genasco Waterproofing Asphalt
Genasco Waterproofing Felts and Fabrics
Genasco Battery Seal Compound
Mineral Rubber
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Genasco Base Oils
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Permanent Construction

Minimum Maintenance

Concrete Solves the Road Problem

The concrete road is gaining in favor in all parts of the United States. Whether laid in North or South, East or West, in all varieties of climate and under widely varying conditions, the concrete road is meeting with success and is solving the problem of securing a roadway at reasonable cost that will stand up under modern traffic conditions.

Public approval and appreciation of the concrete road is based upon practical observation as to its extreme utility, reasonable first cost and the almost negligible outlay required for maintenance.

The most important question in road building today is that of maintenance.

The one aim and desire of road officials and engineers has been to find a material, the use of which would keep maintenance charges at a minimum.

In Bellefontaine, Ohio, the maintenance cost of a concrete road put down 20 years ago has averaged only one-fourth of a cent per square yard per year.

In Wayne County, Michigan, the maintenance on 60 miles of concrete road laid 1909 to 1912 was less than one-sixth of a cent per square yard for three years.

Concrete, therefore, completely answers the maintenance question.

And this combined with reasonable first cost makes it the ideal material for a modern road to meet modern conditions.

CLINCHFIELD PORTLAND CEMENT CORP'N. PORTLAND TRADE MARK CLINCHFIELD KINGSPORT, TENN. CEMENT

Clinchfield Portland Cement Corp.

Office and Mills: KINGSPORT, TENN.

CONCRETE PERMANENT

DIXIE PORTLAND CEMENT CO. ROYAL CHATTANOOGA, TENN.

MR. TAX-PAYER—YOU!

Do you want your county to spend YOUR good money on roads that will wear out before your bonded indebtedness is liquidated?

I SAY YOU DON'T.

What you want is a hard-surfaced road, with little cost for maintenance—a road that can be traveled in rain or snow, summer and winter. You want a PERMANENT road—that means CONCRETE!

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Paving Asphalts	Fuel Oil
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Facilities for shipping in steel drums will be completed by September, 15th, 1921

National Cement Company
Manufacturers of
High Grade Portland Cement

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Output 50,000 barrels monthly. No old contracts on our books, hence prompt shipment.

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CRUSHED LIMESTONE
Best for All Purposes

We manufacture all sizes of stone suitable for all classes of road building and concrete work where only a high-grade limestone is required.

Quarries opened up in 1912.

Capacity 4000 tons daily

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SOUTHERN STATES PORTLAND CEMENT CO. SOUTHERN STATES PORTLAND CEMENT ROCKMART, GA.

We produce only one grade

THE HIGHEST

ALWAYS UNIFORM

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AMERICAN LIMESTONE COMPANY
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SAND

Bank Building Concrete Paving

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In Car, Scow and Barge Lots

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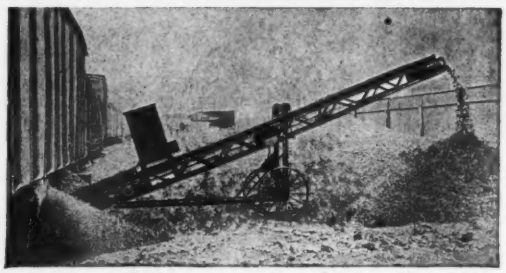
Birmingham, Ala.



Which is the best revolving shovel?

You want the revolving shovel that is SPEEDIEST and MOST RELIABLE—the steadiest worker. Investigate carefully. Talk with men who own ERIE REVOLVING SHOVELS. And write us for a copy of our new Bulletin "R."

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A Few Points of The Haiss Portable Belt Conveyors that Count

1. Improved steel ball bearing rollers that make for big power savings.

2. Hand wheel, head pulley take-up adjustment providing against "stretching" and insuring long life of the belt.

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Haiss Conveyors are furnished with high or low clears.

There are other advantages—but why not let bulletin No. 321 tell you of them. Ask for it now.

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TRUCK LOADERS

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MATERIALS-HANDLING EQUIPMENT

CLAM SHELL BUCKETS



PORTABLE BELT CONVEYORS

QUALITY Kinney EFFICIENCY

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The Standard of efficiency for pumping Heavy Crude Oils, Asphalts, Tars and all heavy viscous or bituminous products.

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Get acquainted with the Kinney Line for Road Builders, Contractors, Municipalities.



708 Feet of BUTT-JOINT NESTABLE CULVERT

of various sizes, loaded on *one* truck. Think of the haulage saving that means?

Butt-Joint Nestable Culverts are made of the finest metal; they are strong and easy to assemble, and strength is not sacrificed for nestability.

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CHATTANOOGA, TENN.



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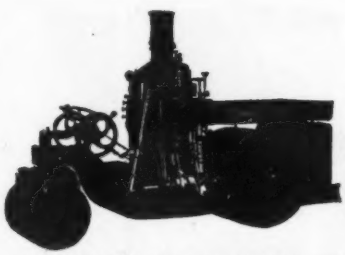
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Superior quality approved by Federal Highway authorities for highway construction.
Crusher capacity, 1000 tons per day.

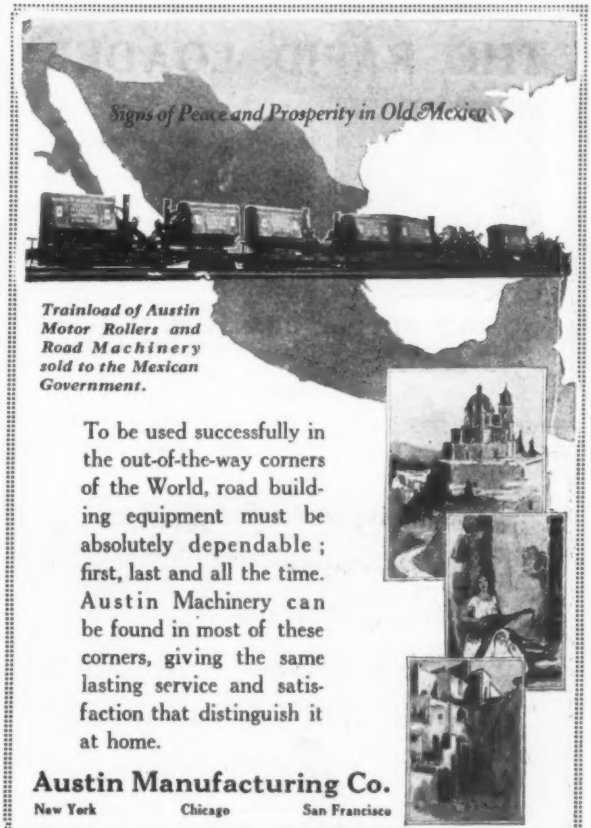
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STRENGTH
DURABILITY
SIMPLICITY
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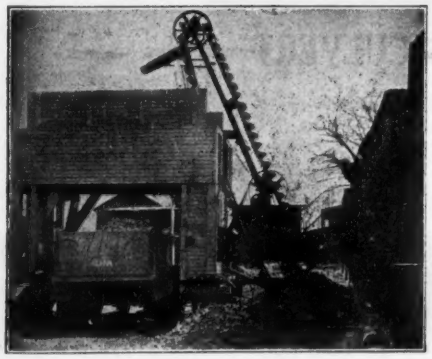
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WE BUILD
SPECIAL MAINTENANCE ROLLERS
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SPUR-GEARED TANDEMS

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LOAD A FIVE-TON TRUCK FOR TWENTY-FIVE CENTS

BY USING A

RELIANCE PORTABLE CAR UNLOADER

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CAPACITY 25 TO 35 TONS AN HOUR

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KINGSTON, N. Y.

Reliance Road Building-Labor Saving Equipment

THE RAPID LOADER



Two Parts—150 pounds each.

None Stronger. None Lighter.

All Steel and Fool-Proof.

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CUMMER ASPHALT PLANTS

All Types and Sizes

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ROAD BUILDING EQUIPMENT

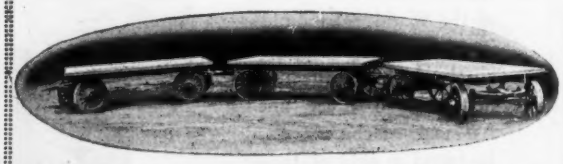
A full line of contractors supplies and equipment

Sales representatives for

Acme Road Machinery Co.
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HAMPTON ROADS EQUIPMENT CO.

251-252ARCADE BUILDING, NORFOLK, VA.



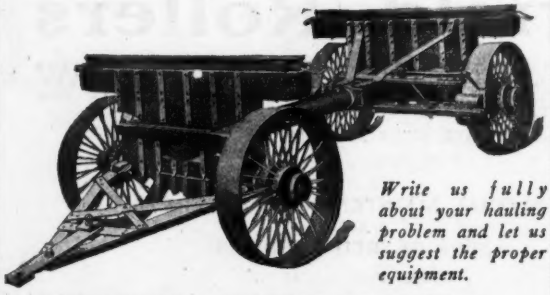
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TRACTION WAGONS for heavy hauling of all kinds, with bed or platform to suit requirements. 5 to 25 tons capacity. Many used in lumbering and mining.

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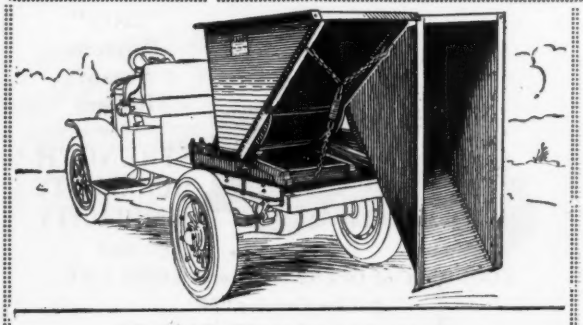
STEEL WHEELS, steel and wood axles, any size and capacity for every requirement.



Write us fully about your hauling problem and let us suggest the proper equipment.

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CUT YOUR HAULING COSTS

By Equipping Your Trucks With

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OVER 30 YEARS A MARK OF QUALITY

Automatic Steel Dump Bodies

Dump Faster—Clean Better—Last Longer

Built for Heavy Duty Work—Oversized Throughout

Single or Dual Types, fits 1, 1½, 2, or 3 ton trucks. Several Sizes, ½ to 2 yd. capacities.

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A letter *from* Old Milano Italy

"We send you under separate cover copy of photograph showing one of your chuting plants which has just been employed in Milan with the best results we and the contractor could ever have expected.

The plant consisted of a Bantam bucket and bin with one 48′ open wood boom chute, a 48′ swivel head trussed chute, a 32′ and a 16′ swivel head chute.

The 130′ timber tower has been erected by the contractors and is of very strong and simple design.

The contractors were Messrs. Pasqualini & Vienna of Milan. The structure is intended for a Hosiery Manufactory.

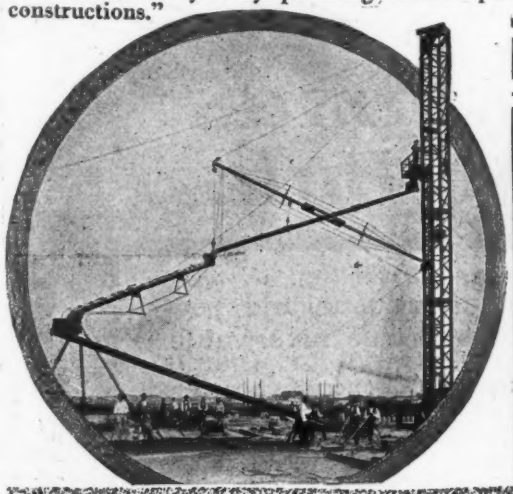
Owing to the necessity of rushing the job, the first and second floors were poured while the plant was being erected.

The flat roof 230′ x 100′ in area, total cubage of concrete about 680 cu. yds., was constructed with your plant.

The job has just been finished and the contractors state that, in spite of the inexperience of the labor, they saved about *15 men or 18 lire per cu. yd.*

They are, of course, highly pleased with the plant, which has been visited by prominent Engineers under the guidance of our Mr. Pesenti. In particular a committee from the National Association of Italian Engineers has officially paid it a visit. As a result, we are now very busy planning similar plants for various constructions."


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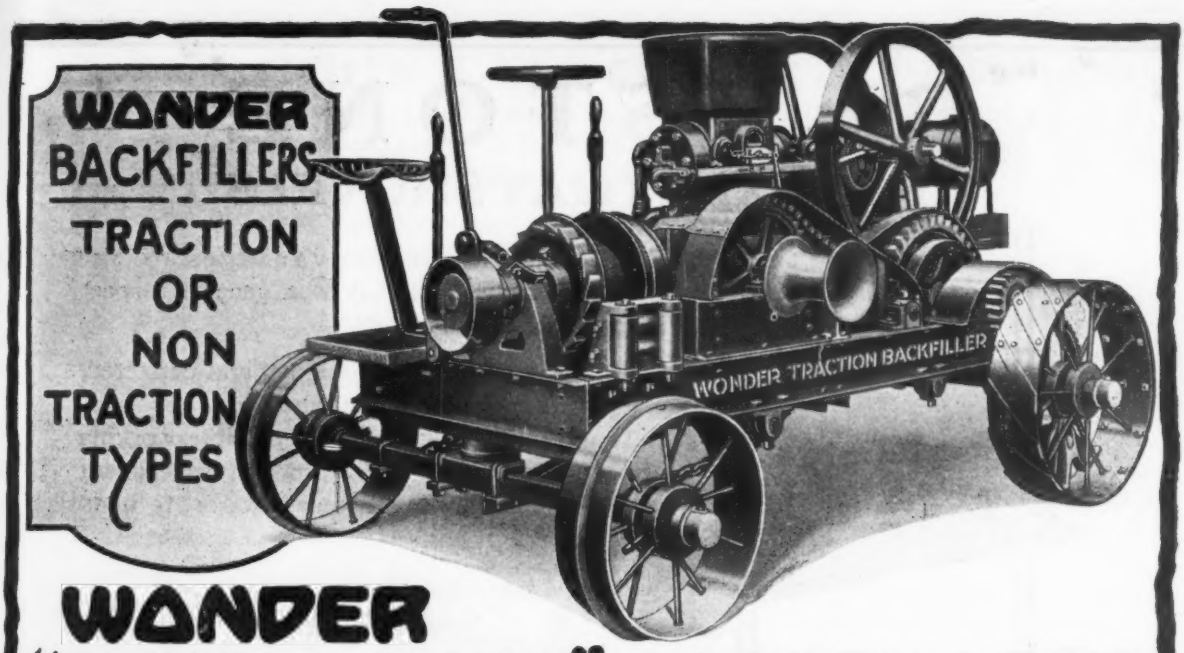
Total yardage of concrete paving completed in state of Washington in 1920	2,706,738 square yards
Number of separate paving contracts in operation	73
NUMBER HANDLED WITH KOEHRING PAVERS	58
Number handled with all other machines	15

Authentic records show that Washington placed the greatest yardage per man in 1920 and at the lowest cost per square yard of any state in the Union.

And 58 of the 73 jobs making this record—79.45%—were Koehring equipped.

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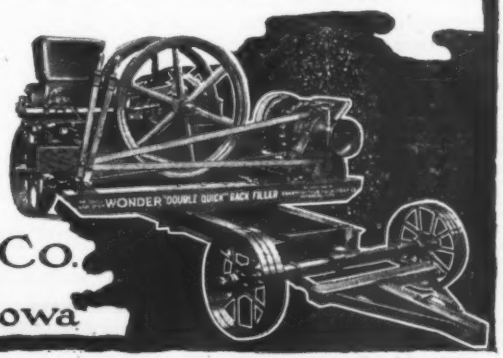
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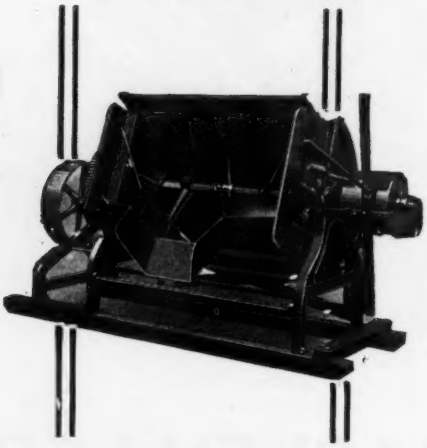
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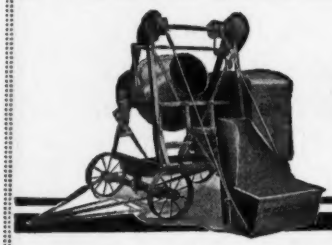
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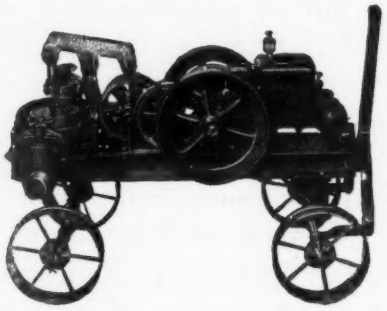
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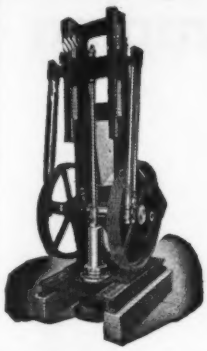


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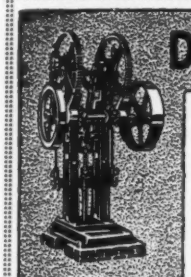
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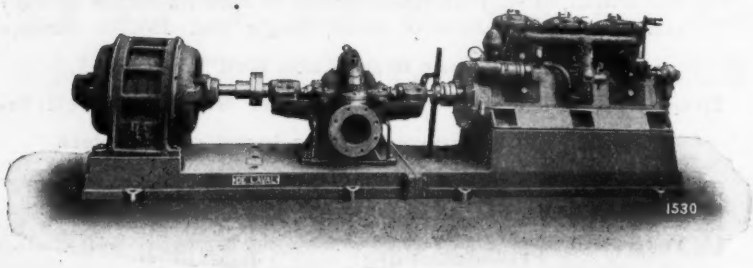
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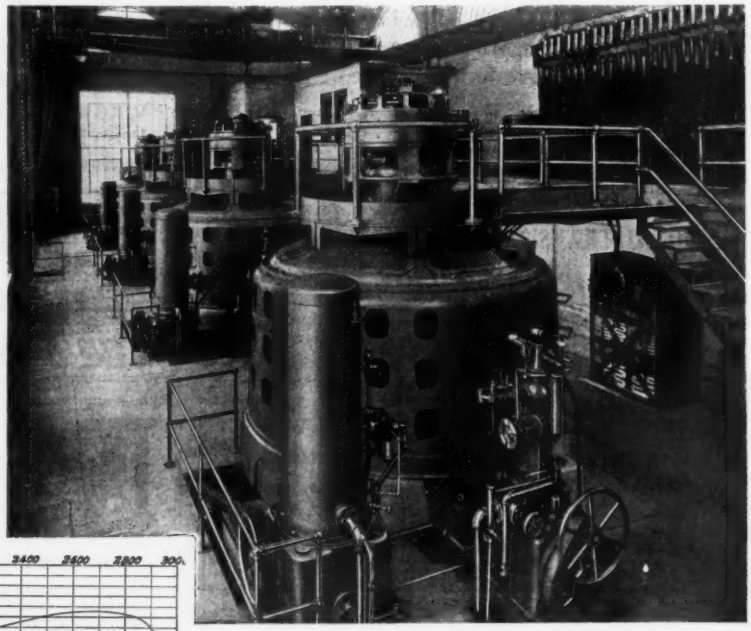
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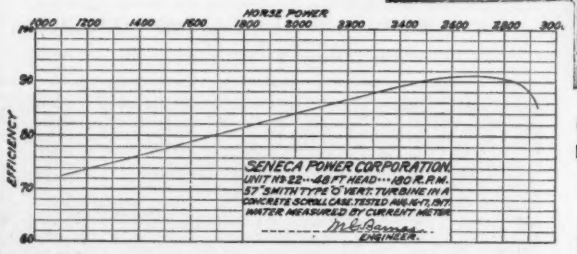
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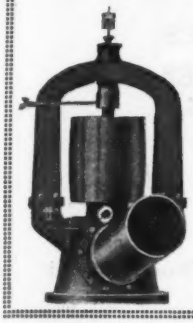


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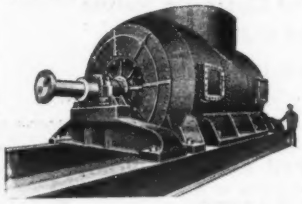
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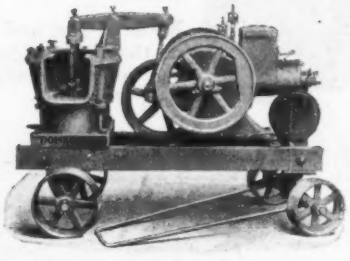
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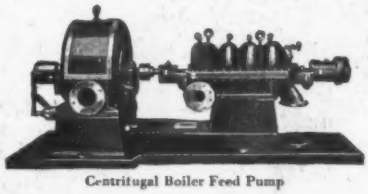
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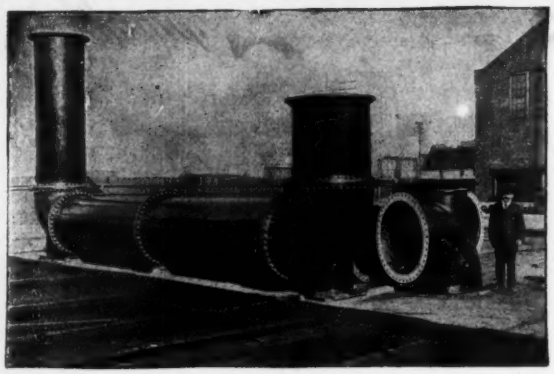
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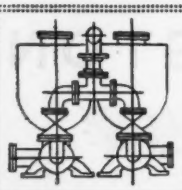
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"NATIONAL" BULLETIN

NUMBER 6 D

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FIFTH EDITION

CORRECT PIPE THREADING PRINCIPLES

CERTAIN fundamental principles govern the results obtained in threading pipe which should interest and do concern practically everyone who has anything to do with the threading of pipe.

Whether pipe is threaded by power machines or by hand-operated tools, when trouble is experienced the cause can usually be attributed to dull or blunt dies, improperly designed dies or poor lubrication.

Failure to study the fundamental principles of pipe threading sometimes results in placing the blame for poor threads on the material in the pipe, when the trouble can often be traced to the use of dies that have not been kept in working condition, or to dies of antiquated design.

It frequently happens that an individual or firm possesses an equipment of dies of improperly designed type, which are not giving satisfaction, and can not economically or conveniently be discarded. It is the purpose of this Bulletin to suggest how such dies may be brought up to present day standards of efficiency by a few simple alterations.

These alterations, while simple enough in themselves, require close observance of definite considerations; and when the changes have been made, result in a die which will cut good threads on pipe of any uniform material. Dies which were made before the advent of modern dies and which have not since been corrected, will push the metal off instead of cutting it, resulting in imperfect threads and in much wear and tear on tools and machinery, and use of excessive power.

The following points are set forth for the benefit of pipe fitters engaged in Commercial Practice, using either hand-operated tools or power machines to thread pipe, as distinguished from pipe manufacturers engaged in Mill Practice where all sizes of pipe up to 20-inch are threaded on power machines under the most ideal conditions.

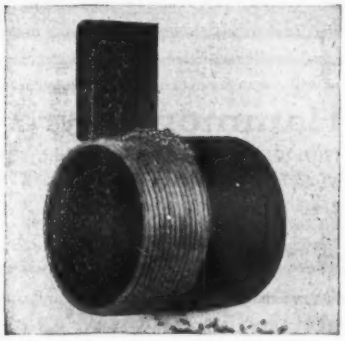


Fig. 1—Rough thread cut with old-style die. Note crumbling chips

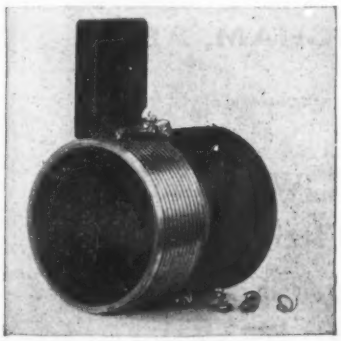


Fig. 2—Clean, strong thread cut with properly designed die. Note spiral chips

Bulletin No. 6D Page 1

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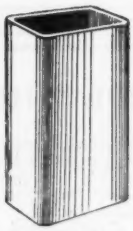
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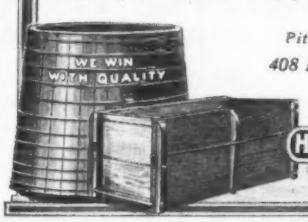
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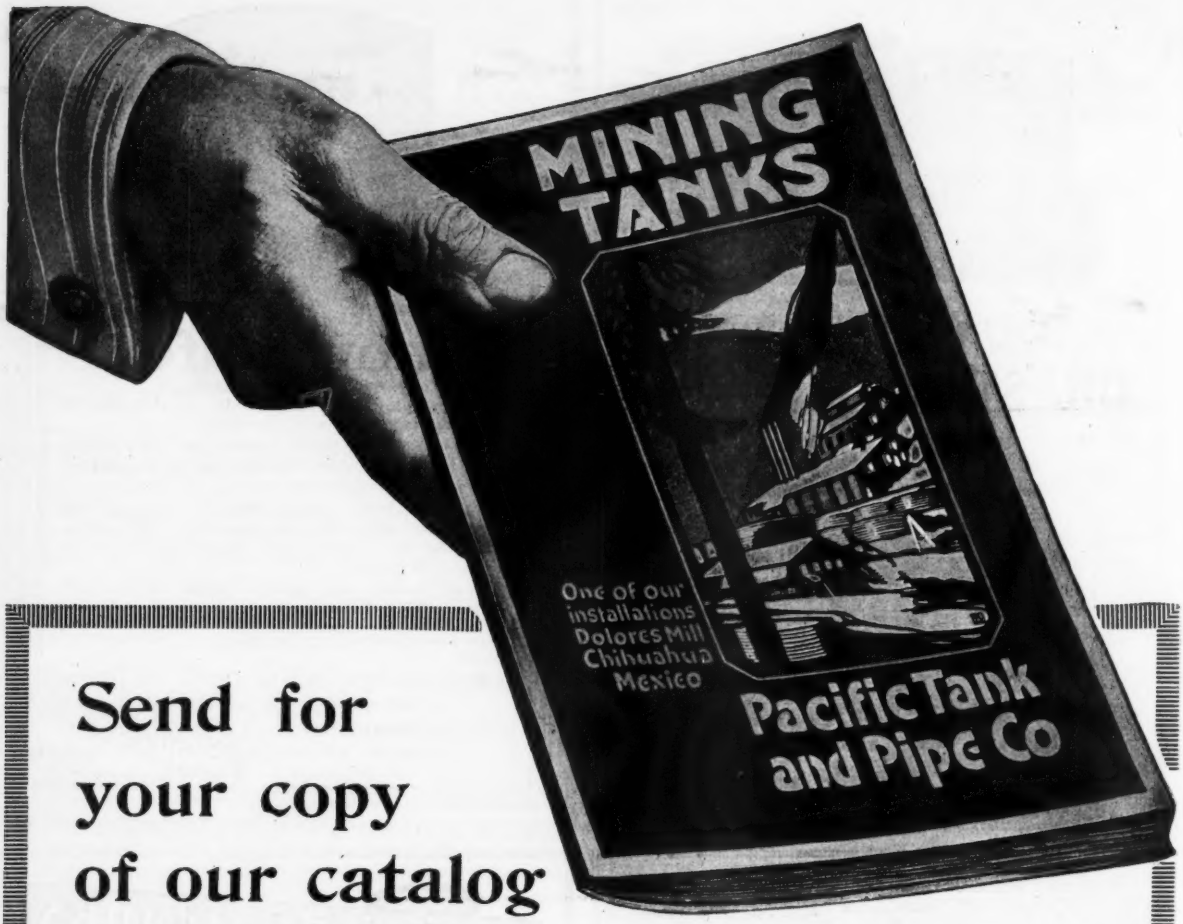
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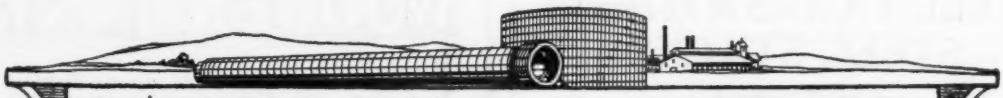


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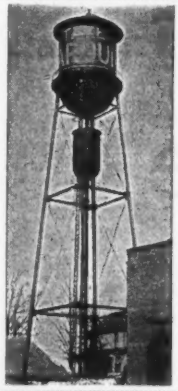
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Caldwell Co., Inc., W. E., Louisville, Ky.
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
Cole Mfg. Co., R. D., Newman, Ga.
Lookout Boiler & Mfg. Co., The, Chattanooga, Tenn.
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.
Walsh & Weidner Boiler Co., Chattanooga, Tenn.

TRACK SPIKES.
Atlanta Bolt & Steel Products Co., Atlanta, Ga.

TRACTORS.
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Industrial.
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Manning, Maxwell & Moore, Inc., New York, N. Y.
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TRAMWAY.
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Yale & Towne Mfg. Co., Stamford, Conn.
Wire Rope.
American Steel & Wire Co., Chicago.
Broderick & Bascom Rope Co., St. Louis.
Caldwell & Son Co., H. W., Chicago.

TRANSFORMERS.
Crocker-Wheeler Co., Ampere, N. J.
General Electric Co., Schenectady, N. Y.
Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.

TRANSMISSION BEARINGS AND HANGERS.
Standard Pressed Steel Co., Jenkintown, Pa.
Transmission Ball Bearing Co., Buffalo, N. Y.
Wood's Sons Co., T. B., Chambersburg, Pa.

TREADS. (Ladder and Stairs Non-slipping.)
Irving Iron Wks. Co., Long Island City, N. Y.

TRENCH MACHINERY.
Ball Engine Co. (Erie Steam Shovel Co.), Erie, Pa.
Buckeye Traction Ditcher Co., Findlay, O.

TRIM. (Metal)
Dahlstrom Metallic Door Co., Jamestown, N. Y.

TROLLEYS. (Overhead Tramway.)
Reading Chain & Block Co., Reading, Pa.

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Drykiln.
Moore Dry Kiln Co., Jacksonville, Fla.
Platform, Freight, Mill, Factory, Etc.
Edwards Mfg. Co., The, Cincinnati, O.

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Cook, A. D., Lawrenceburg, Ind.

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Boiler Tube Co., of America, Pittsburgh, Pa.
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Muller Metals Co., Port Huron, Mich.
Ward's Sons Co., Edgar T., Boston, Mass.
Wheeling Steel Products Co., Wheeling, W. Va.
Seamless Steel.
National Tube Co., Pittsburgh, Pa.

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Hydraulic.
Leffel & Co., James, Springfield, O.
Smith Co., S. Morgan, York, Pa.
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De Laval Steam Turbine Co., Trenton, N. J.
General Electric Co., Schenectady, N. Y.
Westinghouse El. & Mfg. Co., E. Pitts., Pa.

TURNTABLES.
American Bridge Co., New York, N. Y.
Virginia Bridge & Iron Co., Roanoke, Va.

TWINE.
Plymouth Cordage Co., N. Plymouth, Mass.
Whitlock Cordage Co., New York, N. Y.

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Dart Mfg. Co., E. M., Providence, R. I.

VALVES.
Bethlehem Steel Co., Bethlehem, Pa.
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Colonial Supply Co., Pittsburgh, Pa.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Frick Co., Waynesboro, Pa.
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Powell Co., The William, Cincinnati, O.
Power Piping Co., Pittsburgh, Pa.
Ryerson & Son, Jos. T., St. Louis and New York.
Vogt Mch. Co., Inc., Henry, Louisville, Ky.
Westinghouse Traction Brake Co., Wilmerding, Pa.
Wood Drill Works, Paterson, N. J.
Acid-proof
Lunkenheimer Co., The, Cincinnati, O.
Gas Producing.
Morgan Construction Co., Worcester, Mass.
Gas Reversing.
Morgan Construction Co., Worcester, Mass.
Gate.
Ludlow Valve Mfg. Co., Troy, N. Y.

VARIABLE-SPEED TRANSMISSION.
Reeves Pulley Co., Columbus, Ind.

VARNISH.
Wadsworth, Howland & Co., Inc., Boston, Mass.

VENEER CUTTING MACHINES.
Titus, E. E., Petersburg, Va.

VENTILATING APPARATUS. (Engineers' and Contractors'.)
Allen Engr. & Mfg. Co., Savannah, Ga.
Buckeye Blower Co., Columbus, O.
Buffalo Forge Co., Buffalo, N. Y.

VENTILATORS. (Roof.)
Canton Art Metal Co., Canton, O.
Edwards Mfg. Co., The, Cincinnati, O.
Lenderking, Philip H., Baltimore, Md.
Schoedinger, F. O., Columbus, O.

VISES.
Western Tool & Mfg. Co., Springfield, O.

WAGON LOADERS.
Bonney Supply Co., Inc., Rochester, N. Y.
Haiss Mfg. Co., Geo., New York, N. Y.
Link-Belt Co., Philadelphia, Pa.
Portable Machinery Co., Passaic, N. J.

WALL PLUGS. (Galvanized.)
Van Dorn Iron Works Co., Cleveland, O.

WARDROBES. (Rolling, Disappearing Door.)
Wilson Corporation, The J. G., New York.

WASHERS.
Copper, Iron, Brass, Aluminum.
Stimpson Co., Edwin B., Brooklyn, N. Y.

WASHING MACHINERY.
Ore and Phosphate.
Bailey-Lebby Co., Charleston, S. C.
Sand and Gravel.
Bonney Supply Co., Inc., Rochester, N. Y.
Link-Belt Co., Philadelphia, Pa.

WATCHMAN'S PORTABLE CLOCKS.
Chicago Watchman's Clock Works, Chicago, Ill.
Eco Clock Co., Atlanta, Ga.
Eco Clock Co., Boston, Mass.
Newman Clock Co., New York, N. Y.

WATERPROOFING. (For Brick, Concrete, Granite, etc.
Master Builders Co., The, Cleveland, O.
Sonneborn Sons, Inc., L., New York, N. Y.
Texas Co., The, New York, N. Y.
Wadsworth, Howland & Co., Inc., Boston, Mass.

WATER PURIFICATION.
Permutit Co., New York, N. Y.
Refinite Company, Omaha, Neb.
Roberts Filter Mfg., Co., Darby, Pa.
Scaife & Sons Co., Wm. B., Pittsburgh, Pa.

WATER-SOFTENING APPARATUS. (Purifying.)
American Water Softener Co., Phila., Pa.
Borromite Company, Chicago, Ill.
International Filter Co., Chicago, Ill.
Permutit Co., New York, N. Y.
Pittsburgh Filter & Engr. Co., Pittsburgh.
Refinite Company, Omaha, Neb.
Scaife & Sons Co., Wm. B., Pittsburgh, Pa.

WATER-WORKS, SUPPLIES, APPLIANCES.
American C. I. Pipe Co., Birmingham, Ala.
Bourbon Copper & Brass Works Co., Cincinnati, O.
Coldwell-Wilcox Co., Newburgh, N. Y.
Columbian Iron Wks., Chattanooga, Tenn.
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Hamburg Boiler Works, Hamburg, Berks County, Pa.
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National Water Supply Co., Birmingham, Ala.
Pacific Pipe & Tank Co., San Francisco, Cal.
U. S. Cast Iron Pipe & Fdry Co., Burlington, N. J.
Wood & Co., R. D., Philadelphia, Pa.

WAX. (For Belts.)
Cantol Wax Co., Bloomington, Ind.

WELDING.
Blaw-Knox Co., Pittsburgh, Pa.
Oxy-Acetylene.
Sanborn & Co., W. T., Birmingham, Ala.

WELDING APPARATUS.
Electric Arc.
General Electric Co., Schenectady, N. Y.
Oxy-Acetylene.
Oxweld Acetylene Co., Newark, N. J.
Prest-O-Lite Co., The, New York, N. Y.
Sanborn & Co., W. T., Birmingham, Ala.

WELDING SUPPLIES. (Oxy-Acetylene.)
Prest-O-Lite Co., The New York, N. Y.

WELL CONTRACTORS. (Oil, Artesian, etc.)
Cook, A. D., Lawrenceburg, Ind.
Hughes Specialty Well Drilling Co., Charleston, S. C.
Sydnor Pump & Well Co., Richmond, Va.
Va. Machinery & Well Co., Richmond, Va.

WELL TOOLS AND SUPPLIES.
Cook, A. D., Lawrenceburg, Ind.
Keystone Driller Co., Beaver Falls, Pa

WHEELS AND AXLES.
Electric Wheel Co., Quincy, Ill.

WHEEL PRESSES.
Caldwell & Co., E. B., Bradford, Pa.

WINCHES.
Hadfield-Penfield Steel Co., Bucyrus, O.
Mundy Hoisting Engine Co., J. S., Newark, N. J.

WINDLASSES.
Flory Mfg. Co., S., Bangor, Pa.
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Mundy Hoisting Engine Co., J. S., Newark, N. J.

WINDOW FRAMES AND SASH. (Fireproofing.)
Lupton's Sons Co., David, Phila., Pa.
Tuscon Steel Co., Youngstown, O.

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Stewart Iron Wks., Co., Inc., Cincinnati, O.
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American Fence Construction Co., N. Y.
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Atlantic Electric Co., Norfolk, Va.
Telephone, Telegraph.
American Steel & Wire Co., Chicago, Ill.

WIRE CLOTH. (Iron, Steel, Brass, etc.)
Caldwell & Son Co., H. W., Chicago, Ill.
Ludlow-Saylor Wire Co., St. Louis, Mo.
New Jersey Wire Cloth Co., Trenton, N. J.
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WIRE NETTING.
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Wickwire-Spencer Steel Corp., Worcester, Mass.

WIRE ROPE CLIPS.
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WIRE STRAIGHTENERS.
Electric Welding Co., Pittsburgh, Pa.

WIRING DEVICES.
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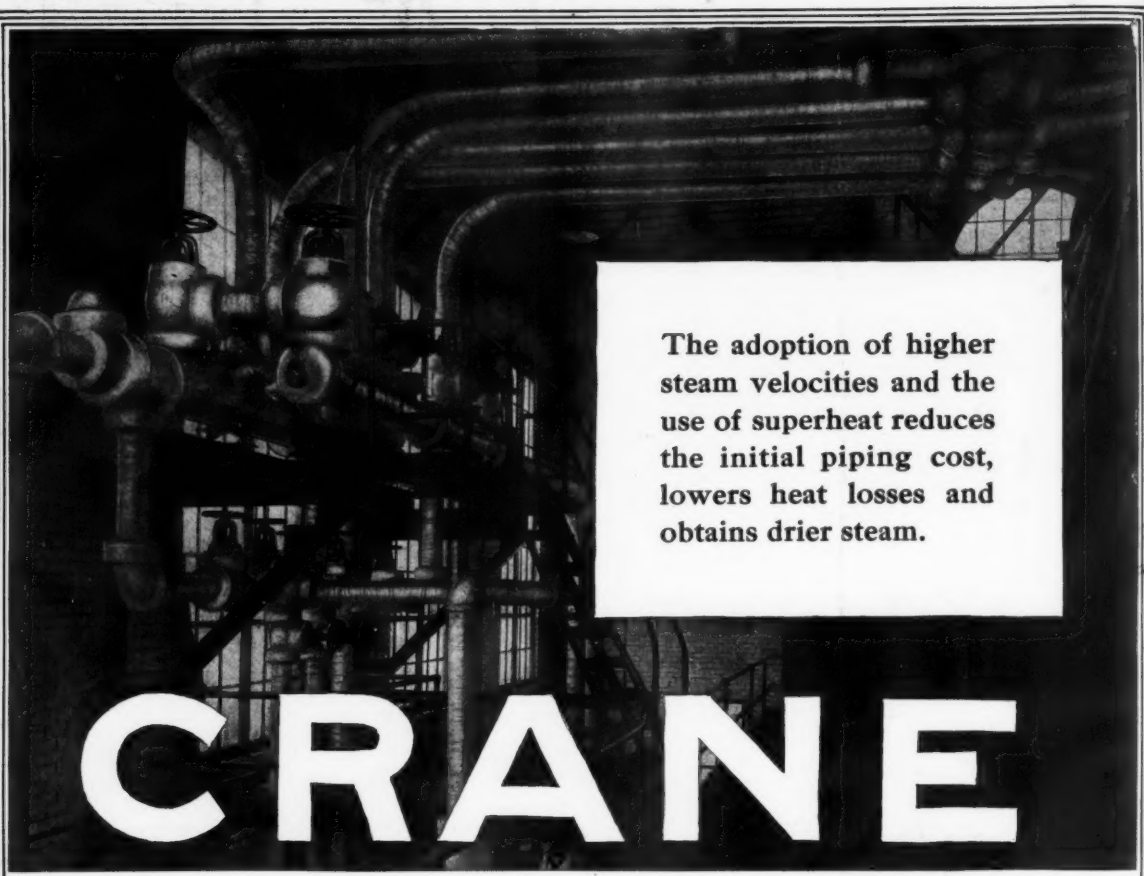
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